

TWENTY-NINTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

OHIO STATE UNIVERSITY

TO THE

GOVERNOR OF OHIO

FOR THE

YEAR ENDING JUNE 30, 1899.

THE STATE OF OHIO

BOARD OF TRUSTEES

OHIO STATE UNIVERSITY

GOVERNOR OF OHIO

THE UNIVERSITY OF OHIO

BOARD OF TRUSTEES

1898-1899

	Term Expires.
WM. I. CHAMBERLAIN.....	Hudson..... May 13, 1899.
DAVID M. MASSIE.....	Chillicothe..... " 1900.
JOHN T. MACK.....	Sandusky..... " 1901.
LUCIUS B. WING.....	Newark..... " 1902.
THOMAS J. GODFREY.....	Celina..... " 1903.
J. McLAIN SMITH.....	Dayton..... " 1904.
PAUL JONES.....	Columbus..... " 1905.
OSCAR T. CORSON.....	Columbus..... " 1906.

OFFICERS OF THE BOARD

WM. I. CHAMBERLAIN.....	President.
J. McLAIN SMITH.....	Vice President.
ALEXIS COPE.....	Secretary.
FRED W. PRENTISS.....	Treasurer.

COMMITTEES OF THE BOARD

EXECUTIVE	FARM	FINANCE
L. B. WING	J. McLAIN SMITH	D. M. MASSIE
T. J. GODFREY	L. B. WING	T. J. GODFREY
PAUL JONES	JOHN T. MACK	J. McLAIN SMITH

FACULTY AND COURSES OF STUDY

THOMAS J. GODFREY	WM. I. CHAMBERLAIN	JOHN T. MACK
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MEMBERS OF THE FACULTIES, AND OTHER INSTRUCTORS

1898-1899

JAMES HULME CANFIELD,
President — University Grounds.

EDWARD ORTON,
Professor of Geology and State Geologist — 100 Twentieth street.

WILLIAM HENRY SCOTT,
Professor of Philosophy — 131 Fifteenth avenue.

SIDNEY AUGUSTUS NORTON,
Lecturer in General Chemistry — 363 East Town street.

NATHANIEL WRIGHT LORD,
Professor of Mineralogy and Metallurgy, Director of the School of Mines, and Dean of the
College of Engineering — 338 West Eighth avenue.

SAMUEL CARROLL DERBY,
Professor of Latin — 93 Fifteenth avenue.

WILLIAM RANE LAZENBY,
Professor of Horticulture and Forestry — The Marion.

JOSIAH RENICK SMITH,
Professor of the Greek Language and Literature, and President pro tempore of the University
Faculty — 239 East State street.

HENRY ADAM WEBER,
Professor of Agricultural Chemistry — 1342 Forsythe avenue.

BENJAMIN FRANKLIN THOMAS,
Professor of Physics and State Sealer of Weights and Measures — University Grounds.

GEORGE WELLS KNIGHT,
Professor of American History and Political Science, and of Constitutional Law —
University Grounds.

ROSSER DANIEL BOHANNAN,
Professor of Mathematics — Sixteenth and Indianola avenues.

C. NEWTON BROWN,
Professor of Civil Engineering — 1343 Forsythe avenue.

ERNST AUGUST EGGERS,
Professor of Germanic Languages and Literatures — University Grounds.

ALBERT MARTIN BLEILE,
Professor of Anatomy and Physiology — 218 King avenue.

WILLIAM ASHBROOK KELLERMAN,
Professor of Botany — 175 Eleventh avenue.

THOMAS FORSYTH HUNT,
Professor of Agriculture, and Dean of the College of Agriculture and Domestic Science —
188 West Tenth avenue.

GEORGE BEECHER KAUFFMAN,
Professor of Pharmacy, and Dean of the College of Pharmacy — University Grounds.

BENJAMIN LESTER BOWEN,
Professor of Romance Languages and Literatures — 46 Jefferson avenue.

JOSEPH VILLIERS DENNEY,
Professor of Rhetoric and the English Language, and Secretary of the University Faculty —
The Marion.

ALLEN CAMPBELL BARROWS,
Professor of English Literature and Dean of the College of Arts, Philosophy and Science
— 15th and Indianola avenues.

EDWARD ORTON, JR.,

Director of the Department of Clay-Working and Ceramics—The Normandie.

JOHN THOMAS MARTIN,

Professor of Military Science and Tactics—1194 Fair avenue.

ROBERT IRVING FULTON,

Professor of Elocution and Oratory—Delaware, Ohio.

WILLIAM FOREST HUNTER,

Dean of the College of Law; Professor of the Law of Sales, Bailments, Evidence, Wills, Construction of Contracts, Law of Corporations; Judge of Moot Courts—1032 Bryden Road; 18 Board of Trade.

DAVID FRANKLIN PUGH,

Professor of Equity Jurisprudence and Law of Real Property—1320 Highland street; Court House.

EMILUS OVIATT RANDALL,

Professor of Commercial Law—1025 Oak street; Supreme Court Room.

EDGAR BENTON KINKEAD,

Professor of the Law of Pleading and Practice, Torts, and of Criminal Law—Wyandotte avenue; Board of Trade.

WILLIAM HERBERT PAGE,

Professor of Elementary Law—527 East Broad street; 27 Board of Trade.

WILLIAM THOMAS MAGRUDER,

Professor of Mechanical Engineering—329 W. Eighth avenue.

J. P. GORDY,

Professor of Pedagogy—The Normandie.

WM. McPHERSON, JR.,

Professor of General Chemistry—97 Hamilton avenue.

JOSEPH NELSON BRADFORD,

Professor of Drawing—54 West Tenth avenue.

DAVID STUART WHITE,

Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine—West Fifth avenue.

HERBERT OSBORN,

Professor of Zoology and Entomology—357 West Seventh avenue.

FRANK EDWIN SANBORN,

Director of the Department of Industrial Arts—380 West Eighth avenue.

HENRY CURWIN LORD,

Director of the Emerson McMillen Observatory and Associate Professor of Astronomy—401 W. Sixth avenue.

FRANK ARNOLD RAY,

Associate Professor of Mine Engineering—The Marion.

OLIVE BRANCHE JONES,

Librarian—53 Eleventh avenue.

EMBURY ASBURY HITCHCOCK,

Associate Professor of Experimental Engineering—380 West Eighth avenue.

FRANCIS CARY CALDWELL,

Associate Professor of Electrical Engineering—380 W. Eighth avenue.

PERLA G. BOWMAN,

Associate Professor of Domestic Science—167 West Eleventh avenue.

CLARENCE P. LINHART,

Director of the Gymnasium—The Great Southern.

WILBUR HENRY SIEBERT,

Associate Professor of History—1332 Highland avenue.

WILLIAM DAVID GIBBS,

Associate Professor of Agriculture—Neil and Tenth avenues.

FREDERICK CONVERSE CLARK,

Associate Professor of Economics and Sociology—Fifteenth and Indianola avenues.

STELLA ELLIOTT,

Associate Director of the Gymnasium—54 W. Tenth avenue.

GEORGE WASHINGTON McCOARD,

Assistant Professor of Mathematics—319 West Fifth avenue.

CHARLES WALTER MESLOH,

Assistant Professor of German—University Grounds.

HERBERT JAMES NOYES,

Assistant Professor of Dairy Husbandry—Richland City, Wisconsin.

JAMES ELLSWORTH BOYD,

Assistant Professor of Physics—25 Maynard avenue.

JOSEPH RUSSELL TAYLOR,

Assistant Professor of Rhetoric—86 King avenue.

CLAIR ALBERT DYE,

Assistant Professor of Pharmacy—169 King avenue.

EDWARD M. VAN HARLINGEN,

Assistant Professor of Anatomy and Physiology—1594 Neil avenue.

THOMAS EWING FRENCH,

Assistant Professor of Drawing—435 E. Naghten street.

ARTHUR WINFRED HODGMAN,

Assistant Professor of Greek and Latin—164 West Ninth avenue.

CHRISTOPHER ELIAS SHERMAN,

Assistant Professor of Civil Engineering—244 Twentieth street.

CHARLES WILLIAM FOULK,

Assistant Professor of General Chemistry—41 Eleventh avenue.

WILLIAM LUCIUS GRAVES,

Assistant Professor of Rhetoric—878 Dennison avenue.

JOHN ADAMS BOWNOCKER,

Assistant Professor of Geology—Clark Place and High street.

JAMES HENRY COLLINS,

Lecturer on Federal Practice—57 Lexington avenue; Ruggery Building.

FAXON FRANKLIN DUANE ALBERY,

Lecturer on the Law of Insurance—37 Lexington avenue; 119½ S. High street.

JOHN A. SHAUCK,

Lecturer on Supreme Court Practice, Special Cases, etc.—95 Winner avenue.

J. WARREN SMITH,

Lecturer on Meteorology—55 Cleveland avenue.

CHARLES LINCOLN ARNOLD,

Assistant in Mathematics—239 West Tenth avenue.

CHARLES WILLIAM WEICK,

Assistant in the Industrial Department and Foreman of the Carpenter and Pattern Shops—
134 West Eighth avenue.

WILLIAM ABNER KNIGHT,

Assistant in the Industrial Department and Foreman of the Machine Shops—206 West Lane
avenue.

HARRIET TOWNSHEND,

Assistant Librarian—53 West Eleventh avenue.

KARL DALE SWARTZEL,

Assistant in Mathematics—57 West Frambes avenue.

THOMAS KENYON LEWIS,

Assistant in Drawing—68 East Seventh avenue.

(1) CHARLES A. BRUCE,

Assistant in French—234 West Tenth avenue.

FRANCIS LEROY LANDACRE,

Assistant in Zoology and Entomology—70 West Tenth avenue.

¹ Absent on leave.

ANNUAL REPORT

JAMES STEWART HINE,

Assistant in Entomology—117 King avenue.

WILLIAM FINLEY LAVERY,

Assistant in Veterinary Medicine—1700 Neil avenue.

MAUD DOROTHY JEFFREY,

Assistant Librarian—65 W. Eleventh avenue.

GERTRUDE STOWELL KELLICOTT,

Assistant Librarian—1332 Highland street.

(2) CHARLES CONRAD SLEFFEL,

Assistant in Industrial Department and Foreman of the Forge Room—174 W. First avenue.

ALBERT EARL VINSON,

Assistant in Agricultural Chemistry—Neil and Tenth avenue.

(1) FREDERICK EDWARD KESTER,

Assistant in Physics—1473 Neil avenue.

JOHN H. SCHAFFNER,

Assistant in Botany—61 W. Eleventh avenue.

CLARK WISSLER,

Assistant in Philosophy and Pedagogy—1355 N. High street.

JOHN FERGUSON CUNNINGHAM,

Assistant in Horticulture and Forestry—1462 Worthington street.

CHARLES BYRON FREDERICKS,

Assistant in Veterinary Medicine—Veterinary Hospital.

(1) HARRY WALDO KLEHN,

Assistant in Mathematics—221 W. Eleventh avenue.

(3) RAYMOND MOLYNEAUX HUGHES,

Assistant in Clay-working and Ceramics.

MURRAY P. BRUSH,

Assistant in Romance Languages—532 E. Broad street.

FRANK RUHLEN,

Assistant in Agriculture—1568 Neil avenue.

LUCY ALLEN,

Assistant in Library—1490 Neil avenue.

(4) SARAH STUBBS JAMES,

Assistant in Domestic Economy.

ALBERT N. BLEININGER,

Laboratory Assistant in Ceramics—North Dormitory.

NEWTON HENRY BROWN,

Assistant in Physics—1609 N. High street.

GEORGE WASHINGTON RIGHTMIRE,

Assistant in American History—1404 Summit street.

EDWARD EVERETT SOMERMEIER,

Assistant in Metallurgy and Meteorology—113 W. Frambes avenue.

DON CARLOS HUDDLESON,

Assistant in Gymnasium—249 W. Lane avenue.

BURT BIDWELL HERRICK,

Assistant in Cheese-making.

ELISHA SMITH,

Assistant in Cheese-making.

CORNELIA PORTER SOUTHER,

Assistant in Domestic Economy—The Dennison.

FREDERICK WILLIAM SMYSER,

Assistant in Industrial Arts and Forge Master—Seventh avenue.

1 Absent on leave.

2 Resigned December 1898.

3 Resigned September 1898.

4 Resigned February 1899.

JOSEPH HENRY VOSSKUEHLER,
Assistant in Drawing.

CLAUDE B. GUITTARD,
Assistant in Library—80 McMillen avenue.

OSCAR ERF,
Student Assistant in Butter-making.

MARION IMES,
Student Assistant in Dairying.

ROBERT FISCHER,
Fellow and Laboratory Assistant in Chemistry—810 Franklin avenue.

HORACE JUDD,
Fellow and Laboratory Assistant in Mechanical Engineering—22 W. Woodruff avenue.

FRANK ORVILLE CLEMENTS,
Fellow and Laboratory Assistant in Chemistry—252 W. Eighth avenue.

MELVIN DURBACH,
Fellow in Anatomy and Physiology—236 W. Eighth avenue.

FREDERICK T. HALE,
Fellow and Laboratory Assistant in Mechanical Engineering—239 W. Tenth avenue.

JOHN BERNARD PARKER,
Fellow and Assistant in Rhetoric—48 W. Woodruff avenue.

FRED ALAN FISH,
Fellow and Laboratory Assistant in Electrical Engineering—239 W. Eleventh avenue.

EMMA LEANNA BALL,
Fellow and Assistant in Mathematics—225 King avenue.

ALBERT HEBER MCINTYRE,
Fellow in Industrial Arts—240 W. Eighth avenue.

SAMUEL E. RASOR,
Fellow and Assistant in Mathematics—22 W. Woodruff avenue.

OLIVER V. BRUMLEY,
Fellow and Assistant in Veterinary Medicine.

BENJAMIN MAAG,
Emerson McMillin Fellow in Astronomy—164 W. Ninth avenue.

EDWARD L. FULLMER,
Fellow in Botany—420 W. Eighth avenue.

W. C. MILLS,
Curator of the Archæological Collection—91 W. Frambes avenue.

EXECUTIVE DEPARTMENT

1898-'99

JAMES H. CANFIELD.....	President
ALEXIS COPE.....	Secretary Board of Trustees and Bursar
W. C. McCracken.....	Chief Engineer
JEAN BLACKFORD.....	Executive Clerk
EDITH D. COCKINS.....	Registrar
C. E. BARNET.....	Accountant
CHARLES LOW	Assistant Engineer
THOMAS BOUDE.....	First Fireman
W. E. CASE.....	Second Fireman
JAMES KELLEY.....	Lawnkeeper
HENRY MARTZ	Watchman

JANITORS

ARTHUR CHANTLER.....	University Hall
HENRY CHANTLER.....	Orton Hall
GEO. W. GOODSPEED	Chemical Hall
JOHN H. BROWN.....	Hayes Hall
GEO. DENNY	Horticultural Hall and Veterinary Hospital
D. D. GEREN.....	Gymnasium
WILLIAM WHITESTINE.....	Biological Hall
M. N. COOK.....	Townshend Hall

STATE GEOLOGIST.

PROFESSOR EDWARD ORTON.

STATE SEALER OF WEIGHTS AND MEASURES.

THE PROFESSOR OF PHYSICS, *Ex-Officio*.

COLUMBUS, O., June 30, 1899.

His Excellency, HON. ASA S. BUSHNELL, Governor of Ohio:

DEAR SIR: I have the honor to transmit herewith the twenty-ninth annual report of the Board of Trustees, Ohio State University.

Very respectfully,

Your obedient servant,

ALEXIS COPE, *Secretary.*

REPORT OF THE BOARD OF TRUSTEES

OFFICE OF THE BOARD OF TRUSTEES,

OHIO STATE UNIVERSITY,

COLUMBUS, OHIO, *September 1, 1899.*

Hon. Asa S. Bushnell, Governor of Ohio:

Sir:—In compliance with law the Board of Trustees respectfully submits the twenty-ninth annual report of the Ohio State University, it being for the year ending June 30, 1899.

ENDOWMENT.

The part of the irreducible debt of the state which forms the endowment of the University was, at the date of the last annual report, June 30, 1898, \$550,469.27, on which the annual interest was \$33,028.15.

Under operations of the act of the General Assembly of March 14, 1889, entitled "an act to quiet title to unpatented lands in the Virginia Military District of Ohio," the following sums were added thereto: Sept. 10, 1898, \$38.47; Nov. 4, 1898, \$0.90; Dec. 9, 1898, \$46.55; Feb. 1, 1899, \$109.23; March 1, 1899, \$750.47; March 8, 1899, \$213; April 10, 1899, \$578; May 4, 1899, \$250; June 14, 1899, \$161.77; total for the year \$2,148.39, making the endowment fund June 30, 1899, \$552,617.66, on which the annual interest is \$33,157.06.

THE WILLIAM J. BRYAN PRIZE.

In April, 1898, the Hon. William J. Bryan, in a letter addressed to the President of the University, made a proposition "to give to the University, if agreeable to the trustees, \$250, the same to be invested and the proceeds used as a prize for the best essay discussing the principles which underlie our form of government."

The Trustees promptly expressed their willingness to receive such gift and their appreciation thereof, and Mr. Bryan a few weeks later forwarded a draft for the amount.

On July 20, 1898, in pursuance of the provisions of Section 4105-15 of the Revised Statutes of Ohio, said sum was certified into the state treasury and became a part of the irreducible debt of the state.

The prize during the past year not having been awarded, the interest on the sum to June 30, 1899, will, under the operation of Section 4105-15, above quoted, be added to the principal, which will make the sum June 30, 1899, \$264.40, upon which the annual interest is \$15.86.

RECEIPTS AND DISBURSEMENTS.

RECEIPTS.

Interest on endowment.....	\$33,064 84
State levy	176,058 15
Sale of refunding bonds.....	10,797 75
Appropriation act of Congress, 1890.....	24,000 00
Students' fees	28,007 45
Store room cards.....	2,050 00
Sales store room supplies.....	224 00
Rents	1,142 50
Cash donations department economics.....	375 00
Emerson McMillan Fellowship in Astronomy.....	300 00
N. B. M. A. Scholarship.....	250 00
Overpayment of interest returned.....	562 50
Sale and exchange books, College of Law.....	309 00
Virginia Military Lands.....	226 62
Sale Sup. Department Ceramics.....	115 83
Miscellaneous receipts	89 42
	<hr/> \$277,573 06

DISBURSEMENTS.

Salaries	\$145,909 12
Expenses of trustees.....	712 70
Repairs	8,697 40
Fuel and light	8,570 28
Library	6,392 64
Printing and advertising.....	2,328 70
Virginia Military lands.....	1,038 99
Roads and grounds	2,591 22
Bonds and interest	53,150 00
Apparatus	20,718 50
Laboratory supplies	6,605 59
Equipment Townshend Hall	1,041 79
Townshend hall	528 70
Water rents	1,141 29
Attorney fees Page will case.....	1,000 00
Postage	521 28
Telephone service	394 68
Telegrams	28 96
Agricultural Students' Union.....	44 22
Rent fire alarm boxes, etc.....	175 68
Insurance	198 99
Commencement expenses	299 45
Oils	381 00
General supplies, cleaning materials, etc.....	182 93
Furniture	154 40
Freight and cartage	36 77
Expenses visiting high schools.....	132 06

Messenger service	307 69	
Blank books and stationery.....	337 13	
Athletic field	151 74	
Fees refunded to soldiers Spanish war.....	98 25	
Collections of Odonata.....	300 00	
Collection of Birds (Davie).....	400 00	
Archæological collection (Moorehead).....	300 00	
Tools and machinery	1,634 13	
Live stock	175 25	
Feed	762 06	
Seeds and plants	114 53	
Incidentals	431 54	
Overdraft year ending June 30, 1898.....	495 36	
		<u>\$268,485 02</u>
Balance in hands of treasurer June 30, 1899.....		\$9,088 04

NEW MORRILL FUND.

The following statement shows the receipts and disbursements for the year ending June 30, 1899, of appropriations made by act of Congress, approved August 30, 1890, and known as the "New Morrill Fund," and which are included in the preceding statement of the aggregate receipts and disbursements.

RECEIPTS.

Balance in treasury June 30, 1898.....	\$267 42	
Appropriation year ending June 30, 1899.....	24,000 00	
		<u>\$24,267 42</u>

DISBURSEMENTS.

For instruction and facilities in agriculture.....	\$5,218 51	
For instruction and facilities in mechanic arts	8,062 83	
For instruction and facilities in English language	754 29	
For instruction and facilities in mathematical science...	1,555 71	
For instruction and facilities in nat'l or phys. science....	7,976 33	
For instruction and facilities in economic science.....	662 44	
		<u>\$24,230 11</u>
Balance June 30, 1899.....		\$37 31

The law of Congress requires a detailed annual report of the receipts and disbursements of this fund, which report for the year ending June 30, 1899, is appended to the treasurer's report filed herewith.

VIRGINIA MILITARY LANDS.

To June 30, 1898, the total receipts from the sale of the Virginia Military Lands granted to the University by act of the general assembly of March 26, 1872, were	\$65,168 66	
The receipts from this source during the year ending June 30, 1899, were	226 62	
		<u>\$65,395 28</u>

The expenses incident to the survey and disposition of such lands to June 30, 1898, were:.....	22,960 10	
Such expenses for the year ending June 30, 1899, were..	1,038 99	\$23,999 09
Leaving net cash receipts to June 30, 1898.....		41,396 19
Of this sum there has been paid to the credit of the endowment fund	13,665 14	
And expended for building and maintaining residences for the professors under act of April 17, 1882.....	20,052 51	\$33,717 65
Leaving balance June 30, 1899.....		\$7,678 54

The receipts and disbursements of this fund for the year ending June 30, 1899, are included in the preceding general account of the aggregate receipts and disbursements.

ADDITIONS TO ENDOWMENT.

For the period ending June 30, 1898, the additions to the endowment fund under the operations of an act of the general assembly of March 14, 1889, entitled "an act to quiet title to unpatented lands in the Virginia Military District of Ohio," the act of April 21, 1893, entitled "an act for the relief of certain persons who formerly held lands in the Virginia Military District of Ohio," an act amendatory of said last mentioned act passed May 21, 1894, and an act passed April 26, 1898, entitled "an act making appropriations for the relief of certain persons who formerly held lands in the Virginia Military District of Ohio," were \$12,627.83.

During the year ending June 30, 1899, under the operations of said first mentioned act, there was added to said endowment fund the sum of \$2,148.39. Making total additions to the endowment fund under said acts, \$14,776.22.

The suits mentioned in former reports which grew out of a contract made with the late Mr. Sam Kendrick in 1882, for the discovery of undiscovered lands in the Virginia Military District of Ohio, are still undisposed of.

One of them, the case of N. W. Evans against the Board of Trustees, which was a suit for \$5,000 attorney fees for services claimed to have been performed under direction of said Kendrick, was tried in January, 1898, and was decided in favor of the University.

The plaintiff has, however, carried the case to the Circuit Court of Franklin county, where it is still pending.

The other suit, the case of Sam Kendrick against the Board of Trustees, a suit for the sum of \$133,000, with interest from June 19, 1889, has never been tried. After Mr. Kendrick's death in December, 1892, the suit was revived in the name of his administrator and is still pending in the Common Pleas Court of Franklin county.

BONDED INDEBTEDNESS.

The bonded indebtedness of the University June 30, 1898, was \$380,000, due and payable as follows: \$25,000 Dec. 1, 1898; \$10,000 June 1, 1899; \$55,000 Dec. 1, 1899; \$10,000 June 1, 1900; \$55,000 Dec. 1, 1900; \$10,000 June 1, 1901; \$55,000 Dec. 1, 1901; \$10,000 June 1, 1902; \$55,000 Dec. 1, 1902; \$10,000 June 1, 1903; \$55,000 Dec. 1, 1903; \$10,000 June 1, 1904; \$10,000 Dec. 1, 1904; \$10,000 June 1, 1905.

Of this indebtedness \$70,000 bore interest at six per cent. and \$310,000 at four and one-half per cent. per annum, payable semi-annually. The \$25,000 of said indebtedness falling due Dec. 1, 1898, was paid when due and the bonds taken up and cancelled.

Under and pursuant to the provisions of an act of the general assembly entitled "an act to authorize the trustees of the Ohio State University to refund and extend the time of payment of portions of the bonded indebtedness of said institution as the same becomes due," passed April 23, 1898, the \$10,000 of 6 per cent. certificates of indebtedness falling due June 1, 1899, were taken up by an issue of the same amount of four and one-half per cent. bonds falling due, \$5,000 Dec. 1, 1904, and \$5,000 Dec. 1, 1905. Said bonds brought a premium of \$797.75, which reduces the annual interest thereon to about three per cent.

Said reduction of principal and interest left the bonded indebtedness June 30, 1899, \$355,000, of which \$295,000 bears interest at four and one-half per cent. and \$60,000 at six per cent. per annum, payable semi-annually.

Said remaining indebtedness falls due as follows: \$55,000 Dec. 1, 1899; \$10,000 June 1, 1900; \$55,000 Dec. 1, 1900; \$10,000 June 1, 1901; \$55,000 Dec. 1, 1901; \$10,000 June 1, 1902; \$55,000 Dec. 1, 1902; \$10,000 June 1, 1903; \$55,000 Dec. 1, 1903; \$10,000 June 1, 1904; \$15,000 Dec. 1, 1904; \$10,000 June 1, 1905; \$5,000 Dec. 1, 1905.

THE PAGE WILL.

In former reports mention has been made of the will of the late Hon. Henry F. Page, of Circleville, in which he devised certain farming lands in Ohio and Illinois (near 1,000 acres in each state) estimated to be worth \$150,000, to the Ohio State University, subject to life estates therein to his widow, Mrs. Charlotte G. Page, and his only child, Isabel Page.

The will provided that in the event of the testator's death within a year, and the consequent failure of the devise to the University, the estate, after the death of the widow and daughter, should go to certain children of his two brothers. By a subsequent provision of the will the testator requested his daughter Isabel to ratify and confirm the devise to the University and provided in case she complied with such re-

quest that the devise to the said children of his brother should thereby be revoked. Mr. Page died within a year from the making of the will and his daughter Isabel formally ratified and confirmed the devise to the University and by deed duly executed, conveyed to it the lands so devised.

Isabel subsequently died and suit was filed in both Ohio and Illinois to set aside the deed of ratification and confirmation.

The case in Ohio was carried to the Supreme Court and decided in favor of the University, the court holding that the deed of ratification, whether valid or invalid, revoked the devise to the children of testator's brothers, and that they have no claim under the will.

After said decision of the Supreme Court the widow of the testator, Mrs. Charlotte G. Page, sent a communication to the trustees, expressing a desire to release to the University any interest she might have in the lands mentioned in the devise, over and above the life estate provided for her in said will, and afterwards duly executed and delivered to the board of trustees her quit claim deed for such interest, which deed was duly recorded in the counties in which the lands lie.

Thereupon the trustees formally released to Mrs. Page, during her life, all claim of the University to one-half of the income of said lands from the date of her daughter Isabel's death, and also formally requested the executors of Henry F. Page to pay to Mrs. Page the sum of \$1,732.26, the amount found in their hands on final settlement of his estate, for the purpose of providing a monument for her deceased husband.

Mrs. Page died shortly after the execution of the instrument before mentioned, and by the terms of said will the title to the lands and the income thereof vested in the University.

Notwithstanding the decision of the Supreme Court above mentioned, the collateral kindred of Mr. Page still assert a claim to the lands and a portion of the income thereof, and the trustees under the will filed a suit in the Common Pleas Court of Pickaway county setting up the conflicting claims of the parties in interest and asking the court's decision thereon. Said suit is still pending.

In the meantime, Mr. John G. Haas, one of the trustees under the will, has been appointed receiver and is managing the lands and collecting the rents and holding them until the determination of such suit.

CAMPUS.

During the fiscal year just closed the sum of \$2,591.22 was expended in caring for the campus — \$1,180 having been used in constructing an artificial stone walk from the armory and gymnasium to the main building, or University Hall, and the balance in grading about the newer buildings and in keeping the grounds, drives and walks in order.

To repeat what was said in the last annual report: "Much remains to be done to carry out the plans of the landscape gardner and put the grounds in symmetrical shape." "A number of additional walks and driveways are needed."

"The plans contemplate a botanical garden and arbortem, and it seems practicable to soon begin this work. It will take time and a considerable outlay, but the comparatively small sums which have been and will continue to be expended from year to year, will soon make the University grounds among the most attractive in the State."

"The trustees again express the hope that some public-spirited citizen will provide the funds for a gateway arch at one of the entrances to the University grounds, and in so doing build for himself an enduring monument."

THE LIBRARY.

The expenditures for the library for the year ending June 30, 1899, exclusive of the salaries of the librarian and assistants, were \$6,392.64. Of this sum \$804.78 was paid for furniture and current supplies; \$720.70 was paid for binding and the remainder, \$4,867.16, was expended in the purchase of books and periodicals.

The report of the librarian shows that the whole number of accessions during the year was 7,660. Of this number 2,643 were purchased and 5,017 donated. Of the books donated, over 3,000 were public documents secured through the continued interest of President McKinley in the growth and progress of the University.

A large number came through the efforts of the University Library Association, and many were received through the liberality of private donors.

Hon. Hylas Sabine presented the library with some 200 volumes, some of which had once belonged to Daniel Webster and bear his autograph. Due acknowledgement for these gifts is made elsewhere in this report.

The number of books in the library June 30, 1898, was 23,339; the number of pamphlets approximately 7,000.

The number of books June 30, 1899, was 30,999, and of pamphlets about 7,000 — the addition to the number of pamphlets about equalling those bound into volumes. The report of the librarian is so important that it is filed herewith.

COLLEGE OF LAW.

When the School of Law was established in 1890 it was with the understanding on the part of the Board of Trustees that it should be self-supporting, and until the year 1894 its professors and teachers received no other compensation than the small sum received as fees from the students.

Mr. Emerson McMillin generously gave \$3,000 for the purchase of books and the late Hon. Henry C. Noble by his will bequeathed his valuable law library. In 1894 the legislature, unasked by the Trustees, passed an act authorizing an appropriation from the state levy of a sum not exceeding \$5,000 annually for its support and maintenance. The Trustees interpreting such action by the legislature as a desire on its part that a sum additional to the fees of its students should be expended for its benefit, annually, until 1897, appropriated the sum of \$1,500 in addition to the fees, which sum was expended towards meeting the salaries of teachers and lecturers.

For the year ending June 30, 1898, this appropriation was omitted, and the fees received from the students paid all expenses of the college and left a surplus of \$700.

During the year just closed the only support was from the fees of its students, and the excess of receipts over expenditures was \$1,707.

The college has constantly grown in popularity and usefulness and at the same time has maintained so high a standard of work that its graduates easily hold first place in the examinations before the Supreme Court.

During the past year the faculty, with the approval of the trustees, has materially raised the requirements for admission, to take effect in the year 1901.

DEGREES.

At the commencement in June, 1899, on the recommendation of the faculty, the following degrees were conferred:

ADVANCED DEGREES.

MASTER OF ARTS.

Frank Brown, A. B. (Macalester College) Columbus; Edward Duncan Meek, B. A., Glencoe; Willam Rufus Kersey, B. A. (Earlham College) Columbus.

MASTER OF SCIENCE.

Frank Orville Clements, M. A. (Otterbein University) Westerville; Horace Judd, M. E., Columbus; Benjamin Franklin Maag, B. Ph. (Wooster University) Mt. Eaton.

MASTER OF SCIENCE (In Horticulture and Forestry).

John Ferguson Cunningham, B. Sc. (H. & F.), Columbus.

FIRST DEGREES.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

BACHELOR OF SCIENCE (In Agriculture).

Arthur Grant Abbott, Medina; Oscar Erf, Monroeville; Clarence Alfred Clawson, Okeana; Marion Imes, Bashan; Frederick Symmes Johnston, Ashtabula.

BACHELOR OF SCIENCE (In Horticulture and Forestry).

Leonard C. Warden, Avon.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE.

BACHELOR OF ARTS.

James Herbert Brandt, Greencastle; Walter Converse, Plain City; Paul Revere Good, Westerville; Robert James King, Zanesville; Susan Esther Rice, Columbus; Frank Persons Rogers, Columbus; Ralph Oliver Spencer, Columbus; Charles Leslie Stimson, Columbus.

BACHELOR OF PHILOSOPHY (Latin Course).

Harrison William Bock, Canton; Dorothea Frances Canfield, Columbus; Lillian Stuart Huffman, Columbus; Burch Delaplaine Huggins, Hillsboro; David Thatcher Keating, Columbus; Dallas Gypsi Lisle, Columbus; Leslie Mac Lisle, Columbus; Carey Ligouri Logsdon, Columbus; Wilber Edwin Mann, Morrisville; William Waddle Richardson, Massillon; Simeon Andrew Roach, Chillicothe; Philip Emerson Ward, Willoughby; John Wesley Young, Columbus.

BACHELOR OF PHILOSOPHY (English Course).

Elizabeth Grant Baldwin, Columbus; Harry Ernest Clum, Westerville; Ida Mae Coursault, Columbus; Thomas Herbert Dickinson, Columbus; Francis William Gruen, Cincinnati; Charles Pearl Harris, West Liberty; Frederic Roland Hoover, Columbus; John Wesley Lehman, Canal Winchester; Herbert C. Mundhenk, Brookville; Gertrude Belle Nichol, Columbus; Maud Raymond, Columbus; George A. Robbins, Columbus; Mary Fannie Rockwell, Columbus; William Ralph Sprague, Columbus; Carl Eckert Steeb, Medina; Edwin Slusser Wertz, Dalton; Anna Ernestine Williams, Jackson; Wood Frank Worcester, Columbus.

BACHELOR OF SCIENCE.

Ruth Mundhenk, Dayton; Henry Lewis Rietz, Gilmore.

COLLEGE OF ENGINEERING.

CIVIL ENGINEER.

Clarence Julian Clarke, Wilberforce; Levi Rawson, Lisbon; Carlton Elijah Stone, Gallipolis; Leigh Goodrich Curtis, Hamilton; Louis Philip Wirthwein, Columbus; David William Smith, Ashland; Clarence Milton Sprague, Sumnerford.

MECHANICAL ENGINEER (In Electrical Engineering).

John H. Hertner, Dayton; Marcellus Staley, Dayton; John Theodore Frankenberg, Columbus; Joseph Farist Green, Dayton; Jesse Joseph Linebaugh, Pleasant Corners; Daniel Karl Starbuck, Barnesville; John Martin Schreiber, Ironton.

MECHANICAL ENGINEER.

Warren Atkinson, Greenville, S. C.; Robert Jewett Pabodie, Wyoming; Harry Goldsmith Bygate, Steubenville; Herman Gamper, Columbus; Arthur Huntington, Columbus; Kerson Nurian, Philipopolis, Bulgaria.

ENGINEER OF MINES.

John Wallace Bischoff, Elk Garden, W. Va.; James Francis Brophy, Frostburg, Md.; Charles Hill Tufts, Maineville.

BACHELOR OF SCIENCE (In Chemistry).

Samuel Vernon Peppel, Leetonia.

COLLEGE OF LAW.

BACHELOR OF LAWS.

Edward Harrison Allen, B. A. (Ohio Wesleyan University), Lena; John Gustave Austin, Sparta; Harry Graham Bockius, Ph. B. (Yale University), Canton; Charles Grosvenor Bond, Columbus; Charles Reed Brewer, Bowling Green; Alexander B. Clark, A. B. (Yale University), Canton; John Randolph Dally, Centerburg; George Edwin Davidson, East Liverpool; Warren Noble Groff, B. A., Tiffin; Reed Haskell Game, B. Ph., Canal Winchester; Francis William Gruen, Cincinnati; Arlington Coryville Harvey, M. A., Columbus; Irwin G. Jennings, Zanesville; William Enjil Krupp, Uhrichsville; Walter Edwin Orton, Williamstown, Mass.; Edward Livingstone Pease, B. A., Columbus; Hugo Nathan Schlesinger, Xenia; Warren Lee Smith, Columbus; Charles Franklin Sprague, B. A., Wapakoneta; Thomas A. Stiger, Bucyrus; Andrew Lee Roy Wildermuth, Columbus.

THE FACULTY.

The most notable change in the faculty during the past year was the retirement of President James H. Canfield, to accept the position of Librarian of Columbia University, New York.

On the 9th day of May, 1899, President Canfield tendered his resignation, to take effect June 30, 1899, and the same was accepted, and on the 13th day of June, following, William Oxley Thompson, D. D., was elected as his successor.

Other less notable changes in the faculty are noted in the report of the President and in the annual catalogue for the year ending June 30, 1899, which are filed herewith and made a part of this report.

The number of professors in the academic faculty is 30; associate professors, 9; assistant professors, 14; assistants, 28; lecturers, 1; fellow and laboratory assistants, 13; librarians, 1; assistant librarians, 5; curators, 1. Their positions and compensation and that of the other employes of the university, are stated elsewhere in this report.

The law faculty consists of the Dean, four professors and three lecturers, whose compensation is also given in another part of this report.

NUMBER OF STUDENTS.

The enrollment of students during the year was as follows:

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE AND COLLEGE OF LAW.

First semester, 524; second semester, 503.

OTHER COLLEGES.

Fall term, 496; winter term, 487; spring term, 410.

The whole number in attendance during the year, as shown by the catalogue, including those in attendance at the summer school, was 1,149.

The numbers in the several colleges, departments and classes, and the courses of study pursued in each, are shown in the appendix to the President's report and in the catalogue filed herewith.

GIFTS DURING THE YEAR.

Besides those especially mentioned in the preceding pages of this report, the University has received by gift the following additions to its museums and collections:

DEPARTMENT OF ECONOMICS AND SOCIOLOGY.

Business men of Columbus for Department Equipment, \$1,225.

M. A. Hanna, Carroll D. Wright, Emerson McMillin, J. B. Breese, Columbus Dispatch, Government Bureau, etc., books.

Ira A. Richards, R. Hirsch, H. Slesinger, M. Munsey and others, coins.

J. Seligmann & Co., Columbus Bank Note Co., Franklin Lee Printing Co., Security Bank Note Co., Alexis Cope, American Express Co. Columbus Street Railway Co., Deshler National Bank, Sessions & Co., New York Life Insurance Co., and others, business paper.

ELECTRICAL DEPARTMENT.

Western Electric Co., Van De Poole dynamo, historical.

Westinghouse Electric and Manufacturing Co., collection of photographs.

General Electric Co., collection of photographs.

The Akron Electrical Mfg Co., collection of photographs.

H. B. Brooks, Edison ammeter, historical.

DEPARTMENT OF HISTORY AND POLITICAL SCIENCE.

Through the interest of President McKinley, a complete set of the "Public Documents of the United States," embracing between three and four thousand volumes.

DEPARTMENT OF HORTICULTURE AND FORESTRY.

The Deming Co., Salem, O., one Kerosene Knapsack Sprayer.

The Robert Douglas Co., Waukegan, Ill., collection of 25 specimens of ornamental evergreens.

Prof. S. B. Green, Department of Horticulture, University of Minnesota, a collection of about 30 specimens of ornamental trees and shrubs.

DEPARTMENT OF INDUSTRIAL ARTS.

From the Morse Twist Drill and Machine Co.:

One $\frac{3}{4}$ in. Hollow Drill.

One $\frac{1}{2}$ in. Straightway Drill (straight shank).

One $\frac{3}{8}$ in. Straightway Drill (taper shank).

One 1 in. Expanding Shell Reamer.

From the Hampden Corundum Wheel Co., one small emery wheel.

From the Fitchburgh Machine Co., The Niles Tool Works, Brown & Sharpe, Warner & Swasey, The Pond Machine Co., The American Tool Works Co., pictures of machine tools for the walls of the shops.

From Hayden's Foundry, a sample of cast iron grafting.

Nicholson File Works, a book of files.

From different Companies, drawings and tracings.

DEPARTMENT OF ZOOLOGY AND ENTOMOLOGY.

S. H. Scudder, Lawrence Bruner, J. B. Smith, M. V. Slingerland, F. M. Webster, H. Osborn, E. P. Felt, U. S. Department of Agriculture and Otto Luggger, entomological papers.

Pletch & Sutton, two sharks.

Professor Bownocker, Pacific Coast starfish.

Sells Bros., tiger, deer, lion.

E. E. Mastermann, skulls and small mammals.

W. C. Munsey, Porto Rican centipede.

Sells Bros., two cockatoos.

DEPARTMENT OF MINING ENGINEERING.

T. E. Hughes, of Philadelphia, Pa., set of Reports of the Pennsylvania Geological Survey.

ESTIMATES.

The following are the estimates for the year ending June 30, 1900:

Salaries	\$151,055 00
Bonds and interest.....	41,875 00
Expenses of trustees.....	600 00
Fuel and light	8,000 00
Power and light plant, repairs, etc.....	4,000 00
General repairs	5,000 00
Printing and advertising.....	2,500 00
Roads and grounds	2,400 00
Virginia Military lands.....	2,000 00
Water rents	1,400 00
Library	6,000 00
Store room supplies	5,000 00
Department apparatus and supplies.....	25,000 00
Incidentals	4,000 00
Total	\$258,530 00

Which will be amply met by the anticipated income of the University.

The reports of the President, the Librarian and the Treasurer for the year ending June 30, 1899, are filed herewith and made a part of this report.

Respectfully submitted,

ALEXIS COPE,
Secretary.

REPORT OF THE PRESIDENT

To the President and Members of the Board of Trustees:

Gentlemen:—The University year just closing has been marked by unusually quiet and steady work in all departments. The completion of our buildings, and the restoration of the campus to its normal condition, has brought relief to the nerves of both the Faculty and the students; and the swing and stride of University life has been practically unbroken during the year. Not for some time has all work been so efficient and have all results been so satisfactory.

In spite of the fact that a large proportion of those who would ordinarily enter this institution at the opening of the University year, entered the service of the United States instead, that most of our students who enlisted in the Spanish-American war did not return in time to re-enter the University, that the last Summer School was attended by the smallest number known since this school was instituted, and that again pressure was brought to bear upon the State High Schools in the way of increased demands (in both the quantity and quality of their work) and by more rigid adherence to University requirements, the enrollment for the academic year shows a very gratifying increase—about ten per cent. over that of last year, in the regular University work. The hold of the University upon the confidence and good will of the state is shown by the fact that these students come from every rank in society—as appears by the very interesting page of information as to the occupations of the parents, to be found near the close of the catalogue, and as appears also by the fact that only three counties in Ohio are now without representation.

DEGREES CONFERRED.

At the last commencement the following degrees were granted:

Master of Arts, three; Master of Science, four; Bachelor of Science, nine; Bachelor of Arts, eight; Bachelor of Philosophy, thirty-one; Civil Engineer, seven; Mechanical Engineer (in Electrical Engineering), seven; Mechanical Engineer, six; Engineer of Mines, three; Bachelor of Laws, twenty-one; total, ninety-nine.

CHANGES IN THE FACULTY.

The changes in the instructional force during the year have been confined, fortunately, to those known as minor instructors. Assistant Director of Ceramics, Raymond M. Hughes, was called to an independent position at Miami University almost at the opening of the year. At the middle of the year Assistant Charles C. Sleffel received and accepted a very flattering call to Columbia University, New York City; and at the close of the year Assistant Charles W. Weick transferred to the same institution. Assistant N. H. Brown withdrew at the close of the year to accept a call to the Chair of Mechanical and Electrical Engineering at Delaware College, Newark, Delaware. Because of the return of the gentlemen during whose leave of absence they were serving, Assistant Professor Edward M. Van Harlingen and Assistant Murray P. Brush, do not return next year. The latter has received a call to Johns Hopkins University. Assistant Frederick W. Smyser withdrew just after our last commencement to accept a more attractive position in the east.

There have been the usual changes in the Fellows and Laboratory Assistants.

The appointments for the coming year include Charles Smith Prosser, M. S., as Associate Professor of Historical Geology; William Edwards Henderson, as Assistant Professor of Analytical Chemistry; Edwin D. Shurter, Assistant Professor of Rhetoric and Public Speaking; George H. McKnight, as Assistant Professor of Rhetoric and English Language; John Bell Sanborn, as Assistant in American History and Political Science; Silas Martin as Assistant in Drawing, and the usual appointments of Fellows and Laboratory Assistants.

By advancement in title you recognized the faithful and acceptable services of George W. McCord, made Associate Professor of Mathematics; Charles W. Mesloh, made Assistant Professor of Germanic Languages; John A. Bownocker, made Associate Professor of Inorganic Geology; Charles A. Bruce, made Assistant Professor of Romance Languages; Charles L. Arnold, made Assistant Professor of Mathematics; Karl D. Swartzel, made Assistant Professor of Mathematics; Charles H. Schaffner, made Assistant Professor of Botany; Fred A. Fish, advanced from the position of Fellow and Laboratory Assistant in Electrical Engineering to the position of Assistant in the same department; and Oliver V. Brumley, advanced from the position of Laboratory Assistant in Veterinary Medicine to the position of Assistant in the same department. Assistant Professor J. R. Taylor has been transferred to the Department of English Literature, and thus given full time for the work for which he seems particularly prepared.

THE PRESIDENT-ELECT.

The most noteworthy appointment made by the Board within the year is that of Rev. William Oxley Thompson, D. D., as President of the University. President Thompson comes to this institution admirably fitted for the responsibilities of the position. He is an Ohioan by birth and by education. His broad and intelligent sympathy with all the educational work of the state has put him in close touch with the best and most advanced teachers of the commonwealth. He has breadth of vision, a willingness to co-operate with others, good common sense (the most uncommon of the senses), and above all he has a distinct Christian character, combined with moral courage and a generous and intense nature.

Taking up his work with the hearty co-operation of the Board of Trustees, and with a hold upon the confidence of the best citizens of the State already assured, there can be no question as to the success of his administration.

UNIVERSITY ATHLETICS.

Although the Athletic Board has been organized little more than a year, yet enough has been accomplished to prove that its conception was a step in the right direction. Under its administration not only have the financial affairs of the Association been conducted in a business-like way, but the general interest in honest college sports among the student body has been greatly increased. Believing that the benefit to be derived from athletic games comes to those who participate rather than to those who simply look on, the Board has in every way encouraged "home" contests, as inter-class games, inter-fraternity games, etc.

The most serious obstacles with which we have had to contend is the lack of finances for carrying out the work. The legitimate expenses which any Athletic Association must meet in order to train and equip its teams for inter-collegiate contests, can only be understood by those who have been connected with such Associations. As a result, with the exception of a few of the larger Universities, where the interest in athletics is intense, Athletic Associations have a constant struggle to keep out of debt. In our own efforts to do this we are greatly indebted to the young women of the University, who, under the leadership of Miss Bowman and Miss Elliott, have kindly given very successful entertainments for the benefit of the Association. But here is a field in which our Alumni ought to work strenuously, and in which they could work very helpfully.

Finally, it is idle to suppose that the local board can meet its necessary expenses, and in addition improve the athletic field to any great extent. We are sadly in need of a grand-stand, of bleachers, and of

a suitable out-door running track. Because of the lack of the latter, it has not been possible for us to hold a track athletic meet this year, although it is exceedingly desirable to encourage this sort of physical exercise. I sincerely hope that the Alumni will raise sufficient funds for the construction of a suitable track at least. Or the Trustees might construct a track if the Alumni will put up a grand-stand and bleachers. There ought to be some steps taken at once to bring about efficient co-operation between these two bodies.

MUSIC IN THE UNIVERSITY.

During the entire course of my administration here, I have strongly desired to advance the musical interests of the University. It will be some time, probably, before definite and higher instruction in this subject can be given by this institution; with usual and proper credits for the same—such a course as is known in Harvard or in the University of Michigan. The fact that most of the students likely to be interested in musical study are residents of Columbus, and have certain *local* advantages in the way of proper instruction, might operate against the success of such University electives; but I believe there is a quite well defined demand for such a department, and it is certainly time that the Trustees were beginning to consider this subject.

Something might be done at once in the way of appropriating a small amount of money each year for chorus training and orchestra work. We have some very good voices in the University, which combine well under training, and without doubt there are latent powers that could be developed. Under a competent instructor our students are quite capable of mastering the shorter choral works, and of presenting these to the public with entire credit to the University. Somewhat similar conditions exist as to orchestra work.

With definite recognition of this work; with a chorus meeting at four o'clock on Tuesday afternoons, and an orchestra meeting at four o'clock on Thursday afternoons—each under competent instruction; and with a good organ in the Chapel, which would be a great stimulus to musical feeling among both students and Faculty, the University would take a long step forward in this most delightful and inspiring art, and would be more than repaid by the advancement of its students in true culture, and by the enlargement and quickening of University spirit which must certainly result.

YOUNG WOMEN AT THE UNIVERSITY.

1898-1899

One crying need of our University life is some means of caring for our young women. This year there have been about sixty young women—not residents of Columbus—and the number is increasing

rapidly. These must find homes among a shifting class of boarding-house keepers, most of whom, unfortunately, have rarely had either special training for their vocation or much experience in it, and are following it simply as a means of livelihood. The number of girls coming to the University from abroad has been too small to cause much competition among these purveyors. There is little effort made to please young women at table; the parlor is not always attractive and is sometimes grudgingly granted for entertaining friends; the health of the boarders is often a matter of indifference; intelligent and sympathetic chaperonage is very rarely considered, and the general result is a body of young women straining the mental and physical powers to the utmost and with no one sufficiently interested or informed to warn them of indiscretions with regard to either health or general well-being.

Other colleges and universities have found it expedient, indeed necessary, to provide halls or dormitories for their women students. These buildings are often so crowded that applications for rooms must be made two or three years in advance. At Chicago University the five halls provided for women have been almost the only paying investment, undergraduate women, and even those doing advanced work, preferring such a home to the outside rooms.

A building which would accommodate perhaps forty women would do much to increase the popularity of the University with mothers, and with the public generally. It would make a very desirable center for much University life. It ought to bring to the University a touch of home life which is now quite lacking. Professors and their wives would gladly come into more personal touch with students if it were possible; and a hall for women might serve a double purpose, being both a social and a working home. A keen interest is now manifested in dietaries for hospitals and armies. Sanitation was never before so much appreciated. Our Department of Domestic Economy is anxious to make its work practical as well as theoretical. A woman's hall would prove a valuable storehouse from which to draw material for a thesis and advanced work, along dietetic, sanitary, hygiene and artistic lines.

Another need of our young women is rest-rooms in the various buildings. There is in University Hall one large room where the girls are supposed to have full sway. It meets the requirement as an assembly room, but it lacks some important requirements for rest. It is usually noisy, and often crowded. The one small room, fitted up in Townshend Hall at a trifling expense, is most constantly in use, and the girls are enthusiastic concerning it. Many of our women students are on the grounds from eight o'clock in the morning until four or five in the afternoon. They could do infinitely better work were they able to secure even ten minutes' absolute relaxation during the day, in some perfectly quiet place. Our sympathies go out to the shop girl who is employed all day, and philanthropy has attempted much to re-

lieve the pressure under which she works; but in contrast with shop girls, who may usually call the evening their own, our college girls go home to spend several hours more on preparation for the next day's work. It is not fair to say, "If women cannot endure University work under present and usual conditions, let them go elsewhere." Most of them can endure University work, heavy work, and do endure it, but care is at times necessary.

The disposition of the woman is different from that of the man; the nerves are usually high strung; but if these characteristics are understood and provision made accordingly, there is little reason why University life should impair the health of the average girl. And one thing necessary is for some place where she may relax utterly for a short time, and where she may be cared for if suddenly taken ill. So strong have I felt this pressure to be that I have more than once given my private office for such purposes. These two concessions certainly need not affect the routine of the University and would prove a boon to our students.

A third demand, which will become more apparent (though it will be hardly more imperative) when there is a building for women, is for some woman who may devote much of her time to the welfare of the girls, and to whom they may feel free to go for advice concerning all things.

Could these three suggestions be met, the popularity and promise of this University would be greatly enhanced and the usefulness would be wonderfully increased. Our young women must be carefully and intelligently considered in the great scheme of public education. Anything which goes to make them more womanly, and which tends to develop their physical, mental and moral natures into a harmonious whole, is worthy of consideration, by both educators and administrators.

THE COURSES IN DOMESTIC SCIENCE.

As to the educational value of the course in Domestic Science: As all work in this department is something of an innovation, I am particularly anxious in this, my last report, to put you in possession of the grounds upon which I have recommended its adoption. No such question can be intelligently discussed except in the light of a definite theory of education — as to the purposes which education aims to accomplish. If education be, as some conceive it, intended entirely for the knowing side of a man; if it be proper for educational purposes to regard the human being as a sort of disembodied spirit, with no body to take care of, with no children to train, with no duties to perform except to itself, and none to itself except as a purely intellectual being; then such a course is an absurdity. If again education be intended primarily for the development of the æsthetical side of human nature, to develop

its capacity to appreciate the art and the literature of Greece and Rome or of later periods; then from this point of view also such a course is entirely without a place in the program of a liberal education.

But if the deepest and most significant thing about life is action, if the function of education is to help men to do more wisely and intelligently everything they have to do, if it is to enable its possessor to apply to all the work of life the utmost intelligence possible in a being with his natural capacity, then such a course is worthy of your constant and fostering care. The fact is that education is intended to touch life at every point, to help men to do not *some* things more wisely than they otherwise could be done, but to help them to do *all* the things that they have to do with the utmost intelligence possible. If history teaches anything, it teaches this, that the rightful sovereign over every department in life is knowledge. For those who admit the truth of this conception, it would seem that scarcely anything would need to be added respecting the propriety of instruction in Domestic Science. The primary purpose of such a course is to help the students to apply the most advanced knowledge to those parts of life that center especially in the home; to enable them to eat and drink more wisely; to live more wholesomely, and to find far more in life than many of them now find; to enable them to train their children more intelligently; in a word, to take those parts of the curriculum which contain principles which may be made to bear upon the life of the home, and make them yield everything that they can yield of a helpful character in this direction.

If the question is ever again raised as to the educational value of the course in Domestic Science, that question is answered if you agree that education consists in preparation for rational life; if you agree that education consists in the possession of that kind of knowledge and development, of that kind of training, which will enable one to live wisely in the broad and full sense of those words. It is not claimed that the course in Domestic Science will enable one who takes it to do all forms of the work of life wisely and rationally. It is simply claimed that the mental training and knowledge derived from such a course will enable the possessor to do intelligently, efficiently and wisely, what otherwise would depend upon mere tact, untrained tact, and largely upon imitation — and imitation of rather poor and weak originals.

AMERICAN HISTORY AND POLITICAL SCIENCE.

The experience of the United States during the past year, and the political governmental problems now pressing upon the country for solution, have placed renewed emphasis on the importance of training our young men and women in history and political science — especially in the history, policy and institutions of the United States as a nation.

Masterful and helpful citizenship is not and can not be a matter of mere intuition and inheritance. International problems, national policy, state and municipal questions, cannot find successful and patriotic solution except by trained minds, both among the leaders and among the citizens at large. An increasing number of men are going from college halls into the legal profession, into state and municipal affairs, into legislative, consular and diplomatic service. The influence of the universities in the councils of the state, especially when crucial governmental questions are to be handled and settled, is constantly increasing. As the problems become more complex and the demand for their intelligent grasp and solution becomes more pressing, the universities must respond with increased resources, opportunities and energy for training in American history, international law, municipal institutions and general political science. Especially must the state universities make large provision for the profession of citizenship—a profession on which all others must depend for safety and progress. This demand is a reasonable one, and one which other universities, such as Columbia, Cornell, Wisconsin, and several more, have recognized in the establishment of Schools of History and Political Science. We are making towards the same general end, perhaps as rapidly as has been feasible to the present time; but still slowly. The establishment of the separate chair of American History and Political Science a year ago, making possible some advanced instruction in American history, has been followed by a rare piece of good fortune in obtaining from the national government an extremely valuable increase of official documentary material. The advanced courses in American History and Political Science have been taken by large numbers of students; and there is a constantly strengthening demand for still further courses; our students having found by comparison of our curriculum with those of other similar institutions that opportunities here are yet relatively deficient. There is no reason why we should lag behind. This University is at the very center of a great laboratory in political science—the complete machinery of state and municipal government is in every day operation here, while several important branches of national administration are represented in the city. It should be comparatively easy to build up here a great school of American History and Political Science, inferior to none in the country. Additional instructional force and large library resources will be needed, but they should be provided in response to a wise and reasonable demand. If Ohio is to retain her rank as the mother of statesmen and political leaders and the home of an intelligent and masterful citizenry, these demands must be met; and by no other institution so appropriately as by the State University.

THE LIBRARY.

That the heart of a University is its library is a fact now so clearly recognized by all who are keeping abreast of progress in educational methods that it may not be argued here. What needs to be considered is the question: What is the condition of this heart? Is its action healthy? Are the beats which send the life blood throughout the whole organism firm and regular?

For six years the library of this University has been recognized as one of the regular departments of the institution — and the Librarian has had a seat and a vote in the General Faculty. Within that period its growth has been steady, but somewhat slow. At the time of its removal to its present quarters in Orton Hall (1893) the library contained about 13,000 books. At the present time it contains nearly 31,000 books, an increase during the six years of 3,000 volumes per year. Within this period Harvard's library has been increasing at the rate of 15,000 volumes per year, Columbia 18,000, University of Pennsylvania 10,000. The fact that Harvard has added five times, Columbia six times and Pennsylvania three times as many books per year to their libraries as has this University, need not interest us especially; but the relation of the growth of their libraries to the growth of the institutions as a whole is significant. This is why the slow growth of our own library is almost ominous. Certainly it has not kept pace with the growth of the University as a whole, while it should have grown more rapidly. In a University with six colleges, and soon to have a seventh, the library is not as large as it should be for one college.

The additions to this library by purchase ought to be at least 5,000 volumes a year. This would require an annual appropriation of \$12,500 for books alone.

In administration the library has always been greatly hampered. There has been a gradual development along this line, but the library has still an inadequate force. The one point which should be emphasized here is the difference between a university library and a public library. The fact that certain things are done and certain salaries paid in a public library has but slight bearing upon the conditions of a university library. Such a library is an integral part of an educational institution, its policy must be determined by the policy of the institution as a whole, and the salaries paid must be regulated with reference to the value of the services rendered from the university standpoint. The librarian of a university ought to rank in general culture, in special training and equipment, in definite purposes, in intensity of life — in all qualities and characteristics — as a full professor at the head of a department. The heads of library divisions should rank as assistant professors. Library assistants should rank as instructors. In all clerical work, thoroughly and peculiarly competent stenographers and typewriters should be employed.

A comparison instituted between what exists in our own library in this brief statement of what ought to be, will show very graphically the changes which ought to be accomplished at the earliest moment.

The equipment of the library has kept fair pace with its growth and activity, but the time has come when the problem of a library building must be faced. That a building for the library alone must soon be erected is evident to those who have kept in touch with all library conditions. However, it would be better to patiently endure crowding in our present quarters than to erect a building not entirely adapted to its purposes.

In designing a library building one of the first things to keep in mind is that it should be a building which can be enlarged. No matter what its first size, or how wisely it has been planned, the time will come when it will be necessary to add and change. In selecting a site this should be kept in mind. The ideal place on the University campus is at or near the center of the present oval—not far from where the path between Orton Hall and University Hall crosses that between Botanical Hall and Hayes Hall. It is almost the geographical center of the campus, which is exactly where a university library ought to be; and it would be a half-way stopping-place between all buildings. This is a great advantage.

The library building should be devoted entirely to the library, but the interests of a library are now so varied that the number and character of the rooms will be many. There should be at least three large reading rooms. One of these would be the general undergraduate reading room of the University. Around its wall should be shelved a library of the world's "best books." To the student, this will take the place of a private library; and will be a place to browse, a place to study and read. The second would be the general reference room in charge of the reference librarians; where would be kept all reference and reserved books, the bibliographies and the library catalogue. The third would be the special reference room, fitted with individual desks; where a certain number, and that a large number, could be given places for special study. In addition to these large rooms, there should be a number of seminary rooms, or suites—as they ought to be in sets of two or three. Then there must be a periodical room, a newspaper room, a fine art room; and provision should be made for other special needs. In addition to these public rooms are the rooms for administration. Because they have been mentioned last is no indication that they are of least importance. They should be unusually spacious, light and airy. The stack ought to be entirely outside of the main building, connected by a "neck," closed by fire proof doors.

To erect and equip such a building, after an approved pattern, would require at least \$200,000. Townshend Hall is an excellent example of what such an investment would create. Of all university build-

ings, the one which would stand for the highest expression of thought is the library building. Nothing elaborate, nothing ornate, is wanted; but that satisfactory completeness and efficiency which comes from the most intelligent plans, worked out in the best material, by most competent architects.

I have long felt that such a building, on this campus overflowing with the best of the young life of the commonwealth, ought to be distinctly and evidently a memorial to the men of the Grand Army of the Republic; whose labors and self-sacrifices made life in this and in all our sister states really worth living.

CONCLUSION.

In conclusion I beg leave to express again my keen appreciation of the possibilities that await this institution. Situated at the very heart of this great commonwealth, with a fast hold upon the confidence of the state, and more and more competent to minister to all the interests of its citizens — it cannot fail of a glorious future. Given its true place as the logical head of the state system of free public education, with all its energies centered upon the highest forms of service, with its affairs administered without fear or favor of any kind, and with constant recognition of the fact that the institution and its work is of greater importance than the personal interests or immediate welfare of any individual connected with it, — in ten years the Ohio State University ought to stand in the very front of the Land-Grant colleges.

Respectfully,

JAMES H. CANFIELD,

Columbus, June 30th, 1898. ⁹(4)

*Note: JHC portion of 47-2 report
dated 2/10/98.*

TABLE I—THE WORK OF INSTRUCTORS, 1898-99.

Subjects	Hours per week						Number of students		
	Lectures.			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
AGRICULTURE.									
Breeds of Live Stock (8)†	3			2			31		
Principles of Breeding (9)		3			2			37	
Stock feeding and Hygiene (10)			3			2			23
Farm Equipment (11)	3			4			26		
Soils (12)		6			4			30	
Farm Crops (13)			3			2			23
Animal Mechanics and Exterior (14)	3			2			15		
Butter Making and Cheese Making (15)					8			18	
Rural Economics (16)			4						15
Dairy Farming (5)		2			2			16	
Butter Making and Cheese Making (6)					16			19	
Butter Mak'g and Cheese Mak'g (7, 15)		2			8			19	
Special								3	
AGRICULTURAL CHEMISTRY.									
Principles, Nomenclature, etc (1)	2			6			67		
Organic Chemistry (8)		2			6			57	
Applications of Chemistry to Agr. (9)			4			6			52
Laboratory (4)				10	10	10	23	21	10
Chemistry of Milk and Milk-testing (7)		2			10	10		15	
Laboratory (6)					10	10		2	2
ANATOMY AND PHYSIOLOGY.									
Human Anatomy and Physiol. (1, 51, 52)	6	6	6	9	3	3	87	82	74
General Physiology			3			1			6
Histology and Hist-Chemistry (59, 4)	2	2	1	18	10	10	8	10	10
Physiological Laborat'y (53, 54, 55, 56)	2	1	1	13	9	15	12	12	12
Bacteriology (6, 8, 61)		2			5			53	
Microscopy (5, 58)			1			3			14
Thesis and Similar Work				3	2	4	5	3	2
Chemical Physiology (3)			1			6			4
Special Bacteriology			1			2			6
ASTRONOMY.									
Astronomy and Geodesy (2)			4	12			7		9
General Astronomy (52)			5						6
Advanced Astronomy (55, 56)	2			10		10	3		1
Special						10			1
Meteorology (3)			2			1			35
Thesis and similar work						10			1

† The figures in brackets are the department numbers—for which see Part II of this Report.

TABLE I—THE WORK OF INSTRUCTORS, 1898-89—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
BOTANY.									
Physiological Botany (66a).....	6			14			39		
Medical Botany (4).....					4			11	
Medical Botany (56).....					4			4	
Systematic and Physiological Bot'y (55).....	2			8			18		
Physiological Botany (53).....	3			6			6		
Physiological and Economic Botany (7).....		3			8			18	
Dendrology (9).....				4			2		
Laboratory Work (57, 58, 60, 64, 66).....				12		29	8		16
Elementary Botany (1).....			3			16			40
Economic Bot'y and Veg. Pathology (8).....			3			6			12
Special and Advanced Work (59, 63, 65).....				12			7		
CLAY WORKING AND CERAMICS.									
Ceramic Chemistry (8, 3).....			2			15			8
Lectures (4).....	5			5			10		
Analysis of Clays and Minerals (2).....		1			10			5	
Lectures and Laboratory (6).....			10			12			8
Analysis of Glasses and Glazes (1, 7)....	2			25	10		6	4	
Manufacture of Bricks (5).....		7						9	
Thesis and Similar Work.....				30	30	30	1	1	1
Lectures (16).....			5						
CHEMISTRY.									
Elementary (51, 52).....	2	2		4	4		48	41	
Elementary (7).....	5	7		34	40		145	139	
Qualitative Analysis (12).....			2			12			16
Qualitative Analysis (53, 54).....	1	1		6	3		10	6	
Quantitative Analysis (55, 56, 4).....	1	1	1	9	4	8	25	21	17
Organic (57, 58, 8, 9).....	5	1	1		4	3	6	6	3
Advanced Chemistry (60).....					3			3	
Applied Chemistry (16).....		2						3	
Toxicology (11).....			4						12
Thesis and Similar Work.....	2			2			3		
Inorganic Preparations (17).....				2			4		
Sanitary Analysis (15).....			1			7			11
Theoretical Chemistry (14).....		3						3	
CIVIL ENGINEERING.									
Land surveying (1).....	5			8			20		
Topography (4).....		1			15			16	
Railroad Surveying (2).....			5			2			12
Topographical Surveying (3).....	1			12			10		
Working Drawing in Ry. Const'n (5).....		$\frac{1}{2}$			15			11	
Stereotomy (6).....		3			15			12	
Bridge Strains (7).....			5						9

TABLE I — THE WORK OF INSTRUCTORS, 1898-99 — Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
CIVIL ENGINEERING — Concluded.									
Bridge Designing (8).....			2½	10			7		
Civil Engineering Laboratory (14).....					8			16	
Sanitary Engineering (10).....			5						7
Masonry Construction (15).....	5						9		
Highways (16).....		5						7	
Water Supply (18).....		5						7	
Trusses (19).....			½			5			12
Surveying (21).....			2			2			4
Thesis and Similar Work.....				8	5	10	7	7	7
DOMESTIC SCIENCE.									
Domestic Economy (1, 2, 3).....	2	2	1	12	12	12	21	19	17
Domestic Economy (4, 5, 6).....	1	1	1	6	6	6	3	7	5
DRAWING.									
Freehand Drawing (1).....				26	24	18	170	162	40
Lettering (2).....			3			18			139
Mechanical Drawing (3).....	2	2	2	6	8	4	62	56	48
Draughting and Blue Printing (4).....		1			4			7	
Photography (7).....	1		1	6		6	11		20
Mechanical Drawing (8).....	1	1		2	2		5	4	
Mechanical Drawing (10).....	1			6			42		
Mechanical Drawing (11).....		1			8			5	
Clay Modeling (12).....					4	4		4	2
Pen Drawing (14).....				4			6		
Domestic Architecture (15).....		1	1		2	2		4	4
Technical Drawing (5).....	1			4			28		
Orders of Architecture (1).....		1			8			1	
Styles of Architecture (2).....			2			6			1
Decoration and Ornament (5).....									
*ECONOMICS.									
Elements of Political Economy (51) (52).....	8	8		2	2		54	68	
Practical Problems in Economics (55).....	2						45		
Industrial and Social Reforms (56).....		2						49	
Transportation Problem (57).....	2						28		
Money and Banking (58).....		2						27	
Seminary (61) (62).....	2	2		2	2		5	4	

*Semester work

TABLE 1—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
ELECTRICAL ENGINEERING.									
Electrical Engineering (2).....	5	5	5	6	6	6	4	10	9
Electrical Designing (3).....				18	18	9	11	10	9
Electrical Laboratory (4).....							15	16	
Electrical Engineering (6).....	2	2		8	12		15	15	
Electrical Engineering (7).....						6			2
Special									
*ELOCUTION AND ORATORY.									
The Science of Expression (51) (52)....	4	4		1	2		73	65	
The Art of Expression (53, 54).....	2	2		2	2		15	12	
*ENGLISH LITERATURE.									
Introduction to Eng. Literature (51) (52)	8	8					76	34	
The English Bible (55) (56).....	1	1					11	10	
Shakespeare (57)	3						17		
Eng. Poetry from Spenser to Milton (53)	2						11		
Prose from Cowper to Ruskin (63).....	3						9		
Prose from Spenser to Milton (54).....	2	2						24	
Masterpieces (65, 66, 67).....	3	3					11	9	
Thesis Work					3			4	
Elizabethan Drama (58).....		3						13	
Poetry from Cowper to Browning (64)...		3						17	
*EDUCATION.									
Elementary Educat'l Psychology (51)...	4						8		
Modern Educational Theories (52).....		4						6	
History of Education (53).....	4						8		
The Herbartian Pedagogy (55).....	4						3		
The History of Education, U. S. (57, 60)	2	2					14	7	
Philosophy of Education (58).....		4						14	
Plato's Republic (54).....		2						5	
Educational Value		2						5	
Child Study	2				2		2	3	
Froebel (56)		2						4	
GEOLOGY.									
Elementary Geology (4).....		5						10	
Cosmical Geology (2) (51).....	5	5		2	1		36	33	
Paleontology (53) (54).....				3	5	3	4	5	2
Petrography (55) (56).....				3	5	3	4	3	1
Physical Geography (1).....			5						37
Economic Geology (3).....			5						22
Geographic Geology (58).....		2				2		1	1
Special			3						3

° Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
GERMAN LANGUAGE AND LITERATURE.									
Elementary German (1) (51) (52).....	12	12					128	114	....
Science Reading (2) (53) (54).....	2	2					16	20	....
German Literature (4) (55) (56).....	8	8					40	36	....
The German Drama (57).....	3						7		....
The German Prose (58).....		3						7	....
Faust I—(59).....	2						7		....
Faust II—(60).....		2						8	....
Thesis.....					1			1	....
Colloquial Exercises (65) (66).....	2	2					5	4	....
Old Norse (69).....	2						4		....
Sanskrit (51) (52).....	1	1					2	1	....
Comparative Grammar (70).....		2						20	....
*GREEK LANGUAGE AND LITERATURE.									
Elementary Greek.....	5	5					14	14	....
Xenophon's Memorabilia (51).....	4						17		....
Odyssey (52).....		4						14	....
Lysias (53).....	4						25		....
Homer (54).....		4						23	....
Homer (57).....	3						7		....
Sophocles Antigone (58).....		3						7	....
Attic Drama (68).....	2						9		....
Sophocles (62).....		2						8	....
Graduate.....	1	1					1	1	....
*HISTORY AND POLITICAL SCIENCE.									
HISTORY									
General History of Europe to Close of Middle Ages (51).....	6						66		....
From Close of Middle Ages to French Revolution (52).....		6						67	....
Political and Constitutional History of England to the Accession of the Stuarts (53).....	3						26		....
From Accession of Stuarts to Present Time (54).....		3						19	....
Political and Constitutional History of United States (55) (5) (56).....	4	4					55	50	....
History of Europe from 1789 to 1815 (57).....	3						7		....
History of Europe since 1815 (58).....		3						3	....
Roman History and Institutions (59).....	2						7		....
Protestant Reformation (60).....		2						4	....
Pro-Seminary (61) (62).....	2	2					14	13	....
Secession, Civil War and Reconstruction (65).....	3						29		....
American Diplomatic History (68).....		3						33	....

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
POLITICAL SCIENCE.									
Constitutional and International Law...	4						32		
Municipal Government (52).....		2						33	
Political Institutions of the United States (53)	3						24		
Comparative Political Institutions of Europe and America (54).....		3						24	
Thesis Work				4	3½		14	13	
HORTICULTURE.									
Elements of Horticulture (1).....	3	3	3	2	2	4	20	8	12
Pomology and Viticulture (5).....	2			4			3		
Vegetable Gardening and Seed Growing (6)		4			1			2	
Small Fruit Culture (7).....			3			2			4
Elements of Floriculture (8).....	1			2			3		
Commercial Floriculture (9).....		1			2			1	
Home Flower Gardening (10).....			1			2			1
Arboriculture (11)	1			2			3		
Forestry (12)		2						2	
Landscape Gardening (13).....			1			2			1
Thesis and Similar Work.....				2	3	2	2	3	2
INDUSTRIAL ARTS AND SHOPWORK.									
INDUSTRIAL ARTS.									
Tools and Machines (1).....	3	3	3				2	5	2
Machine Design						9			18
Workshop Appliances (5).....			3						7
SHOPWORK.									
Carpentry and Pattern Making (1).....				12	12	23	52	27	52
Forging (2)		1½		14	15	6	56	32	15
Foundry Work (3).....					4			13	
Chipping and Filing (4).....				6	4	15	17	27	22
Machine Work (5).....				4	6	6	19	6	13
Advanced Machine Work (6).....				8	6	9	14	8	5
*LATIN.									
Cicero, Livy (51).....	8						50		
Plautus, Terence (52).....		8						43	
Horace (53)	8						43		
Juvenal, Pliny (54).....		8						39	

* Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
* LATIN — Concluded									
Lucretius (57)	6						8		
Elegaic Poets (58)		6						7	
Pharmaceutical (1) (59) (60)	5	5					12	8	
Linguistics and Inscriptions (61) (62)	2	2					3	3	
Thesis and Similar Work									
Prose Composit'n and Tr'slat'n (63) (64)	2	2					4	4	
MATHEMATICS.									
Elementary Algebra (1)	10						22		
Elementary Algebra (2)	5	5	5				16	21	16
Plane Geometry (3) (3a)	5	10					21	36	
Solid Geometry (13)		5						24	
Plane Trigonometry (14)	30		10				140		27
Analytical & Spherical Trigonometry (15)		14						125	
College Algebra (16)		21						134	
Plane Analytics (17)			35						126
Space Analytics (18)	15						56		
Differential Calculus (19)		15						49	
Integral Calculus (20)			15						48
Differential Equations (11)	2						24		
Least Squares (8)	2						10		
* MATHEMATICS.									
College Algebra (67)	15						93		
Problems on all Past Work (66)		1						6	
Advanced Mathematics (63) (64)	7	9					12	12	
Trigonometry (68)		1		12				61	
History of Mathematics			2						7
MECHANICAL ENGINEERING.									
Mechanism (3)		5				4		18	10
Analytical Mechanics (6)	10	13					33	37	
Strength of Materials (7)			10						34
Thermodynamics (8)	5						18		
Prime Movers (9)	5						19		
Machinery and Millwork (10)		5						15	
Experimental Laboratory (12, 13, 14, 15, 16, 17)		1	1	12	13	14	20	13	15
Machine Design (18)	5	5					6	7	
Hydraulic Machinery (20)			2						9
Timber and Masonry (22)		5						10	
Experimental Eng'ring Laboratory (24)						6			7
Experimental Eng'ring Laboratory (25)						6			7

° Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
MECHANICAL ENGINEERING.—Con.									
Graduate Work	1	2	.....	18	18	20	3	3	3
Care of Boiler and Engine.....	.....	2	.....	.....	.....	.....	.....	21	.....
Theses .....	.....	.....	.....	.....	6	20	.....	8	7
METALLURGY AND MINERALOGY.									
Metallurgy (4)	5	5	.....	.....	.....	.....	21	15	.....
Metallurgical Laboratory (5).....	.....	1	1	10	20	10	10	13	12
Ore Dressing (8).....	2	.....	.....	.....	.....	.....	4	.....	.....
Assaying (6) .....	.....	.....	.....	.....	14	.....	.....	7	.....
Mineral Chemistry (9).....	.....	.....	5	.....	.....	.....	.....	.....	3
Mineralogy (2) .....	.....	.....	3	.....	.....	.....	.....	.....	60
Determinative Mineralogy (3).....	.....	.....	.....	.....	.....	10	.....	.....	4
Thesis and Similar Work.....	.....	.....	.....	.....	.....	3	.....	.....	4
Metallurgical Construction (7).....	.....	3	.....	.....	2	.....	.....	4	.....
MILITARY SCIENCE AND TACTICS.									
Military Drill .....	.....	.....	.....	.....	.....	.....	343	327	247
Tactics .....	.....	2	.....	.....	.....	.....	.....	40	.....
MINE ENGINEERING.									
Mine Surveying (1).....	5	.....	.....	6	.....	.....	3	.....	.....
Ventilation and Haulage (2).....	.....	5	.....	.....	2	.....	.....	4	.....
Mine Engineering (5).....	5	5	5	2	2	.....	3	3	3
Mine Operating (3).....	.....	.....	5	.....	.....	2	.....	.....	3
Mine Surveying (4).....	3	.....	.....	9	.....	.....	7	.....	.....
Mine Engineering (6).....	.....	.....	1	.....	.....	8	.....	.....	3
Thesis and Similar Work.....	.....	.....	.....	.....	5	.....	.....	.....	.....
PHARMACY.									
Pharmacy (6) (7).....	3	2	.....	.....	10	.....	12	12	.....
Dispensatories (8) .....	.....	.....	2	.....	.....	10	.....	.....	8
Pharmaceutical Chemistry (9).....	2	.....	.....	10	.....	.....	18	.....	.....
Extemporaneous Chemistry (10).....	.....	2	.....	.....	10	.....	.....	18	.....
Lectures and Dispensing Practice (11).....	.....	.....	2	.....	.....	10	.....	.....	15
Materia Medica (12) (13).....	3	3	.....	.....	.....	.....	14	21	.....
Materia Medica and Therapeutics (14).....	.....	.....	3	.....	.....	.....	.....	.....	19
Pharmaceutical Assaying (15).....	2	.....	.....	10	.....	.....	5	.....	.....
Methods of Manufacture (16) (17) (18).....	.....	2	7	.....	10	20	.....	5	10
Pharmacy (12) (13) (Vet. Students).....	5	5	.....	.....	.....	5	5	5	.....

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
*PHILOSOPHY.									
Psychology (51)	4						40		
Psychology (53)	6						36		
Logic and Ethics (52).....		4						32	
Logic (54)		3						35	
History of Modern Philosophy (56).....		9						37	
Hist. of Ancient and Medieval Phil. (57)	3						9		
Advanced Work (59) (60).....	2	2					3	2	
Physiology & Exp. Psychology (61) (62)	3				4		4	4	
Study of Religion (63) (64).....	2	2					4	2	
Special									
Ethics (55)	6						31		
PHYSICAL EDUCATION.									
Young men	5	4	4	38	32	24	150	100	30
Young women		16	16	16	2		100	90	75
PHYSICS.									
Elementary Physics (1).....	10	10					89	79	
Mechanics and Heat (2) (51) (52).....	7	6	6				88	62	62
Problems (3)	2	2	2				27	20	16
Electricity and Magnetism (4).....	3						14		
Physical Laboratory				30	19	19	13	43	35
Mechanics, Sound and Heat (53).....	3						28		
Electricity and Magnetism (54).....		1			4			20	
Thesis and Similar Work.....				9	6	6	2	3	3
*RHETORIC AND ENGLISH LANGUAGE.									
Paragraph Writing (51) (1).....	14			11			309		
Practical Rhetoric (1) (52).....		14						287	
Analysis of Prose (53) (54).....	8	8					40	72	
Advanced Rhetoric (3) (64).....	4	4					57	44	
Rapid Writing (55) (56).....	1	1		4	4		25	19	
Brief Making and Argument (57).....	3						20		
Short Stories (60).....		2						11	
Poetics (59)	2						8		
Studies in Exposition (58).....		3						14	
Rhetorical Theory & Criticism (61) (62)	2	2			10		5	6	
Thesis and Similar Work.....					2				
ENGLISH LANGUAGE.									
Old English (51) (52).....	2	2					26	24	
Middle English (53).....	2						9		
Historical English Grammar (54).....		2			2			6	

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99 — Continued.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
*ROMANCE LANGUAGES.									
FRENCH									
Elementary French (1) (52).....	12						154		
Modern Prose and Plays (1) (52).....		12						131	
Modern French Literature (55) (56) (2)	8	8					63	47	
Recent French Prose Writers (58).....		3						29	
Advanced Prose Composition (59) (60)	1	1					18	16	
French Comedy (57).....	3						27		
French Seminary (61) (62).....	3	3					6	8	
Thesis and Similar Work.....				5	5				
ITALIAN									
Elementary Italian (51) (52).....	2	2					8	5	
SPANISH									
Grammar and Readings (51) (52).....	2	2					12	11	
VETERINARY MEDICINE.									
Anatomy (28)	5						15		
General Pathology (29).....		5						18	
Special Pathology (30).....			5						16
General Surgery (24).....	5			5			2		
Clinic (19)	2	2		12	12	12	9	9	9
Special Pathology (20) (21).....	3	3					5	4	
General Therapeutics (22).....			5						4
Lectures and General Pathology (14)...	5		5				7		5
Osteology (11)	5			10			7		
Meat Inspection (27).....	5						6		
Special Pathology (15) (16).....		5	5					5	5
Diseases of the Cow (17).....		3						15	
Surgical Diseases and Operations (18)..	5	5	5				5	5	5
Myology (12)		5						5	
Eye Diseases		2						3	
Principles of Horse-shoeing (26).....			5						3
Obstetrics (23)		5						2	2
Canine Disease (31).....			3						3

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1898-99—Concluded.

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
ZOOLOGY.									
Comparative Zoology (1) (51) (52).....	4	4	4	10	8	8	81	64	21
Com. Anatomy of Vertebrates (53) (55)	2	.....	.....	12	.....	.....	4	.....	.....
Com. Anatomy of Vertebrates (54) (56)	.....	1	.....	.....	8	.....	.....	3	.....
Zoology and Anatomy (58) (60).....	.....	2	.....	.....	8	.....	.....	8	.....
Economic Entomology (3).....	.....	.....	.....	.....	.....	6	.....	.....	2
Economic Entomology (4).....	2	2	2	.....	.....	.....	15	15	12
Systematic and Practical Entomology (7).....	.....	.....	3	.....	.....	.....	.....	.....	7
Comparative Zoology (64).....	.....	2	.....	.....	4	.....	.....	21	.....
Zoology (57) .....	.....	.....	.....	12	.....	.....	3	.....	.....
Graduate Work .....	.....	.....	.....	16	.....	.....	2	.....	.....

TABLE II—SHOWING THE WHOLE NUMBER OF DEGREES IN COURSE
CONFERRED SINCE THE FOUNDING OF THE UNIVERSITY.

	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Bachelor of arts.....	1	1	6	2	2	1	5	4	6	8	6	1	7	2	6	9	12	19	13	17	18	8
Bachelor of philosophy.....				2		2	2	1	1	2	6	7	4	8	8	5	5	19	26	27	27	31
Bachelor of science.....	5	5	1	2	5	3	2	4	2	4	4	8	2	10	7	11	7	9	4	10	10	2
Bachelor of science in agr.....								1	1				2	3	3			2	4	4	5	5
Bachelor of science in chemistry.....																						1
Bachelor of science in H., F.....															1	3		1	1	1	2	1
Bachelor of science, Ind. Arts.....																				1	1	....
Civil engineer.....						1	1	1	3	3	4	1	2	2	7	9	7	9	11	4	8	7
Mechanical engineer		1	..	2	4	1	3	1	2	4	2	3	2	5	2	1	2	2	4	9	5	6
Electrical engineer															4	9	8	15	17	13	10	7
Engineer of mines.....		1	1	..		1	2	4	1	4	2	..		1	1	4		1	6	3	2	3
Graduate in pharmacy.....										3	..	2	3	6	5	5	3	11	12	11	7	....
Master of pharmacy.....																			1	....	1	....
Doctor of veterinary medicine.....										1	..	1	4	..	4	5	..	4	2	3	....	....
Master of arts.....													1	1	1	2	..	2	....	4	4	3
Master of science.....				1	..								1	1	2	..	2	....	3	3	2	3
Master of agriculture.....																		1	2	....	1	....
Master of science in H. & F.....																				1	1	1
Doctor of philosophy.....		1	..														1	....				....
Doctor of science.....													1	..				1	....	1	....	....
Bachelor of laws.....															9	18	15	16	6	23	22	21
Master of laws.....															2	4	2	....	6	....	....	....
Totals	6	7	9	8	9	11	12	16	18	24	28	26	30	36	65	79	70	112	118	135	126	99

TABLE III—SHOWING THE NUMBER OF STUDENTS IN THE GENERAL TECHNICAL AND PROFESSIONAL COURSES.

	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
General courses (College of Arts).	137	151	194	245	256	322	327	358	371
Technical courses (other Colleges except Law)	166	259	381	368	424	453	453	511	541
Professional courses (College of Law)		55	67	72	65	100	132	148	191
*Graduate students and summer school	2	....	....	1	....	94	97	133	75
Totals	305	465	642	686	745	969	1,019	1,150	1,178

*Until 1896, graduate students have been included in the first three classes.

REPORT OF THE LIBRARIAN

COLUMBUS, OHIO, July 1, 1899.

The President, Ohio State University:

Dear Sir:—The annual report upon the condition of the University Library is herewith respectfully submitted.

SIZE AND GROWTH.

The number of books in the library is approximately 31,000. The number is not given exactly because the great number of public documents which have been received within the last few months have not yet been accessioned, lack of room and lack of help having made it impossible to keep that work up to date.

Thirty-one thousand volumes would be considered but a medium-sized library for a college, and for a university with six colleges it is totally inadequate. In the Phi Beta Kappa address at the Northwestern University in 1893, William F. Poole well expressed the true relation of the library to the university. He said, "The popularity of a university once depended wholly upon the professional reputation of its instructors. Now the leading questions relate to the size, character, and value of its library. The presence of a large body of post-graduate students is an inspiring feature of university life, and to the public a guaranty of the high scholarship and superior educational advantages of the institution. These students can not be secured and retained unless they have access to a large and well-furnished library." Now in character the University Library yields to none. Our books are well selected, there being very little "lumber" on the shelves. But when size is considered, it is plainly evident that large and frequent additions will have to be made before the Ohio State University Library can be that power in the University that all, who are keeping abreast of progress in educational methods, now recognize that it ought to be.

It is six years since the library was made a regular department of the University. Within that time the additions have been (in round numbers) 18,000 volumes, an average increase of 3,000 volumes per year. Within this period Harvard's Library has increased at the rate of 15,000 volumes per year, Columbia 18,000, and the University of Pennsylvania 10,000. The fact that Harvard has added five times, Columbia six times and Pennsylvania three times as many books per year to

their libraries as has the Ohio State University need not interest us especially, but the ratio of the growth of their libraries to the growth of the institutions as a whole is significant. And here is the reason that the slow growth of the university library is ominous. It has not kept pace with the growth of the University as a whole, while it should have grown more rapidly.

Naturally the main source of growth must be looked for in the annual appropriations of the Board of Trustees. Since the average cost of a University book is \$2.50 it is easy to estimate the appropriation needed to add by purchase the very moderate number of 5,000 volumes per year. The largest annual appropriation for books which has yet been received is \$5,000, it being the appropriation for 1898-1899, and the same amount has been appropriated for 1899-1900. It is earnestly hoped that the Trustees will soon see their way clear to more than double the size of the annual appropriation.

One very important source of increase is to be found in public documents of all kinds,—government, state and municipal,—and in the reports and transactions of learned societies. The majority of these most valuable documents may be had for the cost of transportation, providing there is some one connected with the library whose duty it is to keep constantly informed as to what is being issued and to make a point of securing it. A very great service was done to the Library by the Board of Trustees when an assistant was added to the Library staff, who should be responsible for securing material of this kind.

Another source of increase, and one which has been especially fruitful during the last year, is found in the donations resulting from the individual care and interest of friends of the University. The number of books added to the Library in 1898-1899 was 7,660, an annual increase unprecedented in the history of the Library, and almost half of the entire number added since 1893. Of this number 5,000, approximately, have been presented, and fully 3,000 of these gifts came through the action of three men. Such a gift deserves special mention and we take pleasure in giving its history.

The University Library is not a depository for United States documents. In designating such depositories the University has been passed by and now Ohio has her full quota. Many of the cloth-bound volumes have come to the Library, but the set of sheep-bound documents, which contains many valuable committee reports not to be obtained in any other way, has never been on our shelves. In March Professor Knight addressed a letter to Secretary Cope, calling his attention to the great loss the Library was sustaining in not possessing these books and suggesting that something might be accomplished through President McKinley. Secretary Cope at once wrote a strong letter to the President, stating that the State University was not obtaining from the government the gifts to which it ought to be entitled,

and asking that if possible something be done to change the existing condition of affairs. President McKinley, who still retains a warm interest in the University, gave the matter his immediate attention, with the result that about half of the sheep-bound documents have been sent to us from Washington, and we are expecting to obtain more. So much is due to individual effort. Under the existing law we can not be made a depository. It is hoped that the plan first suggested by the Association of Agricultural Colleges of making depositories of all the land-grant colleges which are not already such, will be carried through this next session of Congress.

Many gifts have come to the Library through the efforts of the University Library Association. This is an organization the object of which is "to work for the welfare of the Ohio State University by augmenting the University Library," and from it the Library expects to derive much benefit. Mr. Paul Jones, wisely feeling that the Library was the point on which outside effort for the advancement of the University could best be centered, was the originator of the organization and is its president. The Association is composed of those specially interested in the University and naturally contains many alumni. At the business meeting of the Alumni Association, held June 13, it was voted to appropriate \$25 from the funds of that Association to be used by the University Library Association under the direction of the librarian. This is not for the purchase of books, but is to be used for incidental expenses, such as circulars and letters, which it is hoped will bring large results in additions to the library. During the last year 395 books have been added to the Library through the efforts of the Association. Some of these have been rare old volumes, a number presented by Mr. Hylas Sabine having come from the library of Daniel Webster and containing his autograph. Special mention should be made of the books presented by Mr. George T. Spahr from his father's library in response to the request of Mr. Jones, acting for the Association. These number 263, and being along a line in which the University Library is weak, will be of special value.

An alphabetical list of donors to the Library during the past year is appended to this report.

USE.

The use of the Library is constantly increasing. It is now open fourteen hours each University day and eight hours on Saturday. It has not been thought wise to use much of the assistants' time in gathering statistics, but for two months this year a record was kept of the number coming to the Library each day. The average attendance was found to be 350 per day. There are months when the attendance is not so large. During fine weather the tendency to spend much of the time out of doors reduces the number in the reading room, yet

the attendance even during the month of May was by no means small. The use of the Library at night, though not large, is constant and satisfactory. The summer use of the Library has been exceedingly small. Even when the summer school has been in session an attendance of more than one or two people a day has been a matter worthy of comment. Yet it is desirable that the Library be open a part of the time during the summer, and it has been decided to have it open for consultation each day during this summer, from eight until eleven A. M. During the meeting of the American Association for the Advancement of Science the Library will be open all day.

NEED OF NEW BUILDING.

The equipment of the Library has kept fair pace with its growth and activity, but the time has come when the problem of a library building must be faced. That a building for the Library alone must soon be erected is evident to those who have kept in touch with the Library conditions. However, it will be better to patiently endure crowding in our present quarters than to erect a building not suited to its purpose in scope or size.

In designing a library building, one of the first things to keep in mind is that it must be a building which can be enlarged. No matter how large the building or how wisely it has been planned, the time will come when it will be necessary to add to it. In selecting a site, this should be remembered. There is a place on the University campus which, if a good foundation can be obtained, is almost ideal, and that is the site of the Botanical Building. It is almost the geographical center of the campus, which is the place for a college library to be, and what is better still, it is on a hillside which makes it possible to have the main floor of the building connect with the center of the stack, which is a great advantage. If a new building should be erected for the Department of Botany, it would be most desirable to reserve this site for the Library.

It is probable that it would not be necessary to build the stack at the time of the erection of the building. That could come later. The building in itself should be so spacious that for a number of years the whole Library could be contained in it. Then, as the Library grows larger and need for reading room as well as book room increases, the stack could be added and by the removal of the books additional space could be given to readers. The building should be devoted entirely to the Library, but the interests of a Library are now so varied that the number and character of the rooms will be many. There should be at least three large reading rooms. One of these would be the general undergraduate reading room of the University. Around its walls should be shelved a Library of the world's "best books." This will be

to the student in place of the private library, a place in which to become familiar with the "literature of power." The second would be the general reference room in charge of the reference librarians, where would be kept all reference and reserved books, the bibliographies and library catalogues. The third would be the special reference room fitted with individual desks where a certain number, and that a large number, could be given a place for special study. There should also be a large hall where lectures could be given. In addition to these four rooms there should be seminary rooms, a periodical room, a newspaper room, a fine art room and provision for other special needs. There must also be the rooms for administration. Because these have been mentioned last is not an indication that they are least in importance. That they be spacious, light and airy is of the utmost importance.

To erect such a building after the manner in which it should be erected would require at least \$300,000. A perfectly plain building containing the requisite number of rooms could probably be built for less money, but of all University buildings the one which stands for the highest expression of thought in brick and stone should be the Library building. Nothing elaborate, nothing ornate is wanted — only the elegance which comes from the work of the best architects and artists, and the use of the best materials. And simple elegance is not low priced.

ADMINISTRATION.

There is a great difference between the ideal college library and the public library. This is admitted by all who have studied the problems confronting the two institutions. The public library exists for the whole community, it must address itself to all classes of men, it must attract the children and retain the mature reader. The college library exists primarily for the few, and those few with a common interest. Though other readers are welcome, it is the need of the professor and student that must first be considered. The Library must be looked upon not as a great social force, but as a factor in the educational work of the college. This is the fundamental characteristic of the college library. It must be an active force in the educational policy of the school with which it is connected. To that end its first and most important duty is to secure books, more books and always more books. A professor knows the literature of his subject. If he does not he should not be at the head of his department. What he needs for himself and for his students is to have as much as possible of this literature on the shelves of the University Library. In a public library, full cataloguing (a very expensive process) must keep step with the book supply, or the public will have no way of knowing what the library possesses. In a college the professor knows what he ought to have,

knows what he does have, guides the students to it and can well do away with expensive cataloguing until there is plenty of money to put into such a luxury. What he needs, what the student needs, is to have the books.

In the University Library three of the five members of the library staff spend most of their time in the acquisition department. Miss Kellicott has charge of all orders, making a complete bibliographical study of each order as it goes out, checking the bills when the books are received, keeping all accounts — of which there are a goodly number — collating, stamping and accessioning all books, whether purchased or presented. Mr. Guittard is responsible for securing all documents which can be had for the asking. Reference has been made to this work in another part of the report. As has been said before, this work is invaluable. Miss Townshend has charge of the periodicals and binding. Watchful care must be given to periodicals in order to secure the reception of complete files; constant attention is requisite not only in looking after new binding, but also in keeping old volumes in good condition. If the Library binding could be done in the Library, it would be a very great advantage. A large and increasing amount of the most valuable material in a library comes to it of a necessity unbound. The library must see that this is well bound in order to preserve it, and the preparation of volumes for binding is no small item of the library work. All of the university binding has up to this time been done in Columbus, with varying degrees of satisfaction. We have been fortunate within the last few years in having the work uniformly well done, although we have suffered from the hurry incident to any business where there is a great pressure of work. One great difficulty, however, has been in the fact that the volumes have had to leave the library during binding. It has not been wise to allow all the binding to accumulate until the summer because of the danger of loss and damage arising from using unbound material, yet whenever binding has been sent from the Library during the year it has invariably happened that some books have been especially needed while they were away. Could this work be done in the library building, the books would be accessible during the whole period of binding excepting while in the press. This would be an advantage so great that it would seem sufficient reason for establishing a bindery, yet there are other reasons for so doing which are fully as important. Not least among them is the fact that our books could be kept in a better state of preservation. Scarcely a day passes without the necessity of books being mended. Much of this work now is done in the library, yet there are often breaks which can not be mended with the tools at our disposal. These books then have to be laid to one side until a lot is sent down to the bindery. With an expert binder in the building, work of this character could be kept

constantly up to date and would greatly save our books. Another point is that the binding would always be under the personal supervision of the librarian.

The books once secured, the next duty of the University Library is to teach the student to make the best use of them. Here the Library steps in as the ally of each professor. The professor gives the necessary references, but it is the Library which should lead the student to original research. Here is another point of difference between the public library and the university library. In the reference work of a public library the aim is to bring a person as much material as possible on his subject; in a college library it is the rule that, if possible, in no case is the material to be brought to a student, but care is always to be taken in helping him to secure it for himself. In a public library the main point is for an inquirer to know what *that* library contains on his subject, in a university library the student should be introduced to bibliographies which will let him know the best that has been written on the subject. He can then find out what his own library contains, and after reading that little does not go away feeling that he has read all that there is to know. In all reference work in a university library this educational feature must be prominent. Of course it requires time, but it is work that pays. In this the Library is weak, having only one regular assistant in the work, Miss Allen. Miss Jeffrey gives part of her time to it, but the most of her time is given to shelf listing and classification.

Classification is something which is made much of, but which in reality is nothing more than the orderly arrangement of the books on the shelves. What arrangement shall be adopted should depend upon the character of the library. The books in the University Library are carefully classified, but as yet no marks have been placed upon them. It is the intention this next year to follow somewhat closely the Harvard scheme of marking. The actual work of classifying, however, requires high scholarship and good judgment. Indeed, the reference work, the classifying, and the subject cataloguing should be in the hands of specialists. The idea that one person can so well know the whole range of knowledge as to do such work for a whole library in the manner in which it ought to be done, is manifestly absurd.

Reference has been made to cataloguing as a luxury. This refers to full dictionary cataloguing. An author list of everything in any library is, of course, a necessity, and this the University Library has. A classed subject catalogue is very desirable, and there is one in process of construction. Much can be done next year toward completing it without additional help. But a dictionary catalogue of subjects and authors is after all the only true catalogue, and that the library has never possessed, and can never possess (unless other work is given up), until a catalogue expert is added to the Library staff. Some librar-

ians, and they are of the highest rank, maintain that students in a university should be taught to use bibliographies, most of which are prepared by specialists, instead of depending upon any one catalogue, however good; and they say that money spent by colleges in such elaborate catalogues could better be spent in books. However, there is no disputing the fact that an entirely new catalogue of the University Library, made on the most approved plans, is very desirable, and the time when the Board of Trustees can see its way clear to appoint a cataloguer will be a very auspicious day for the Library and for the University.

Much of the time of the Librarian has necessarily been spent in routine work. This has been a great detriment to the highest work of the Library. Organization, superintendence and teaching should fully occupy the time of a university librarian. The organization of the acquisition department has been accomplished, but there is still much to do in the second division of the work, i. e., making the books of the most value to the student. Superintendence is, of course, constant. Teaching has two branches, first teaching the use of books to university students; and second, teaching library economy to special students. The first branch has been barely attempted and should receive special attention during the next year. Attendance upon lectures on books and the proper use thereof should be required of every student who enters the University. The second branch is fairly well established and it is hoped will lead to a regular course in library economy.

COURSE IN BIBLIOGRAPHY AND LIBRARY ECONOMY.

In 1888 there was established the first school in which library science was taught as a profession. This was at Columbia University, and the school, which was afterwards removed to Albany in connection with the New York State Library and is now known as the New York State Library School, became the parent of a number of other schools taught by its graduates and modeled on its plans. One of these is in connection with the University of Illinois. In no college or university, however, has library science yet been taught as one of the regular courses of instruction running through the entire four years of undergraduate work and with post-graduate courses. That this must be done soon is evident, and it is earnestly hoped that the Ohio State University may have the honor of being the first to offer such a course, giving credit therefor.

For two years students have entered the University for the sole purpose of studying in the Library, although it was known that they could receive no credit for such work. Next year there will be a class of four or five studying library work.

STAFF.

Not until June, 1893, was the Library recognized as a distinct separate force in the University. Up to that time it was attached to the regular work of a professor and necessarily was a secondary consideration with him. It was fortunate for the Library, however, that it fell into the hands of such men as Professor S. C. Derby and Professor J. R. Smith. Book lovers themselves, and with clear ideas of the whole range of literature, they established the book collection on a firm basis and did much to give that high character to the University Library and did much to give that high character to the University Library of which we are justly proud. But librarianship is a profession in itself and to ask one man to be both librarian and professor of a subject other than bibliography was found to be laying too heavy a burden on him. Accordingly, at the time of the removal to new quarters in Orton Hall, the Library was made a distinct department in charge of a librarian who was a member of the general faculty. This was an advance, though in reality it did no more than place the Library in an independent position at the foot of the ladder. The progress up the ladder was slow. The first round was reached when the librarian was granted enough money for student assistance to enable him to have some one beside himself in the library each hour of the day. From this point the Library has slowly advanced to where, with a staff of five and a small sum for employing student assistants, we may be said to occupy a middle place so far as service is concerned. Those who have followed carefully the work of the Library know well how much had to be left undone during the years of insufficient assistance. The Library is only now beginning to catch up with this back work. It is hoped that by next Christmas most of it will have been brought up to date, and this obstacle to progress will have been removed.

As has been said, the Library has scarcely yet reached the point where it can be said that in regard to service it is doing as much as it ought to do. In the first place, more trained helpers are needed. At the present time there should be in the Library an expert cataloguer and an additional reference assistant. Secondly, it should be possible to so arrange the work by departments that the head of a department could make use of clerks and copyists, thus concentrating his time in the truly scholarly work of the Library. Thirdly, there is needed a great advance in salaries. The one point which must be emphasized here is the difference between a university and a public library. The fact that certain things are done and certain salaries paid in a public library has no bearing at all upon a college library. A college library is an integral part of an educational institution, its policy must be determined by the policy of the institution as a whole and the salaries paid must be regulated solely with reference to the salaries generally paid in the college or

university. The librarian of a university ranks as one of the professors and should be paid accordingly. The heads of library departments should rank as assistant professors with corresponding salaries. Library assistants should rank as instructors and be paid according to the university scale for paying instructors. Clerical work should bring the same salary that is paid for such work in any business. A comparison of what exists in our Library with this brief statement of what should be, shows clearly the very inadequate manner in which the Ohio State University provides for its Library.

GOVERNMENT.

The Library ranks simply as one of the departments of the University; but in its work and requirements it is very much broader than would be indicated by such rank. It affects the work of every department of the University, and is essentially a part of each of the six colleges. This fact is virtually recognized by the Board of Trustees in the creation of the Library Council which, aside from the president of the University and the University librarian, who are members *ex officio*, is composed of the Deans of the six colleges. This council stands to the Library in much the same relation that a college faculty stands to its college. It is the governing body which settles all questions of library policy, directs the disbursement of the book fund and approves bills.

The council makes annually a written report upon the condition of the Library to the general faculty.

Very respectfully,

OLIVE JONES.

LIST OF DONORS 1898-1899.

	VOLUMES
American Bankers' Association	1
American Book Company.....	6
American Guernsey Cattle Club.....	1
American Hereford Record Association.....	2
American History and Political Sc. Dept. of O. S. U.....	25
American Institute of Mining Engineers.....	2
American Shetland Club.....	2
American Short-horn Association.....	1
American Shopshire Association.....	4
American Society of Mechanical Engineers.....	1
Arkansas, State Documents.....	11
Arlington Mills	1
Babcock and Wilcox Co.....	1
Black Top Spanish Merino Sheep Association.....	1
Boston Transit Committee.....	4
Brockhaus, F. A.....	17
Brown, James S.....	1
California, State Documents.....	34
Canada, Documents	2
Canfield, James H.....	40
Cincinnati Chamber of Commerce.....	1
Colorado, State Documents.....	10
Connecticut, State Documents.....	107
Crane Company	1
Denison University	1
Denney, J. V.....	1
Dorset Horn Sheep Breeders Association.....	1
Electric Appliance Company.....	1
Farm Implement News Company	1
Foult, Charles W.....	1
Fowler, Charles E.....	1
Georgia, State Documents	16
Gordy, J. P.....	1
Harris, William T.....	2
Harvard University	1
Hensel, Otto	1
Herald Publishing Company.....	4
Herrick, B. B.....	29
Herrick, L. C.....	1
Heywood, W. S. and A. B.....	2
Houghton, H. O.....	1
Houghton, Mifflin and Co.....	1
Hunt, T. F.....	2
Illinois, State Documents	84
Indiana, State Documents	39
Iowa, State Documents	69
Kansas, State Documents.....	57

	VOLUMES
Kentucky, State Documents.....	23
Kershaw, Ella.....	30
Knight, G. W.....	4
McCall, John A.....	1
McCallum, Ray.....	1
Mack, I. F.....	1
Maine, State Documents.....	59
Maine State Pure Blood Jersey Cattle Association.....	8
Maryland, State Documents.....	14
Maryland College.....	1
Massachusetts, State Documents.....	157
Michigan, State Documents.....	139
Michigan, State Law Reports through G. W. Knight.....	71
Millar, John.....	1
Minnesota, State Documents.....	28
Missouri, State Documents.....	64
Monetary Commission.....	1
Montana, State Documents.....	1
Moore, Clarence B.....	2
Murrill, Paul I.....	1
National Educational Association.....	1
National Funeral Directors' Association.....	1
Nebraska, State Documents.....	22
Nelson, Baker and Co.....	1
New Hampshire, State Documents.....	18
New Jersey, State Documents.....	4
New South Wales Government.....	1
New York, State Documents.....	8
New York City.....	1
Noa, Frederic M.....	1
North American Galloway Association.....	9
Ohio, State Documents.....	179
Ohio State Archaeological and Historical Society.....	3
Ohio State Law Library.....	5
Ohio State University Alumni Asso. through J. A. Bownocker.....	1
Ohio Wesleyan University.....	1
Ontario, Government.....	2
Orton, Dr. Edward.....	1
Philadelphia.....	1
Physiology, Dept. of O. S. U.....	2
Pittsburgh Reduction Company.....	1
Princeton University.....	1
Reform Club.....	1
Royal Society of Canada.....	1
St. Louis.....	1
Siebert, William.....	2
Smith, J. McClain.....	14
Sociology, Dept. of O. S. U.....	1
Southern Railway Company.....	1
Squibb, Edwin R. and Co.....	4
Standard Poland China Record Association.....	5
Sturtevant, B. F. Co.....	1
Text-book Association of Philadelphia.....	1

	VOLUMES
Townshend, Mrs. N. S.....	13
Union Club	1
United States Government.....	3109
University Library Association—	
O’Kane, Henry	1
Randall, E. O.....	55
Sabine, Hylas	23
Siebert, Wilbur H.....	1
Shoemaker, A. L.....	13
Spahr, George B.....	263
Wharton, Mrs. Mary.....	39
University of Tennessee	1
Wisconsin Sheep Breeders’ and Wool Growers’ Association....	2
Total	5,017

REPORT OF THE TREASURER

COLUMBUS, OHIO, June 30, 1899.

To the HONORABLE J. McLAIN SMITH, President Board of Trustees of the Ohio State University.

SIR: I beg to hand you herewith my annual report for the fiscal year ending the 30th day of June, 1899. This report is accompanied by proper vouchers for all disbursements.

Respectfully,

F. W. PRENTISS, *Treasurer.*

STATEMENT I.

DETAILED STATEMENT OF RECEIPTS BY F. W. PRENTISS, TREASURER, DURING
FISCAL YEAR ENDING JUNE 30, 1899.

Date.	From whom received.	For what purpose.	Amount.	Total.
1898.				
July 18	W. C. McCracken.....	Sale of old iron.....	\$2 50	
	Edw. Orton, Jr.....	Supplies in Dept Cer..	115 83	
	U. S. Treasury.....	App. Act Aug. 30, 1890	24,000 00	\$24,118 33
Aug. 6	G. B. Kauffman.....	Sale store-room sup.....		224 00
12	Com. Sinking Fund....	Int. on Endowment.....		3,800 00
Sept. 9	C. C. Middleswart.....	Diploma fee	5 00	
	F. C. Clark.....	"Bus. Men's Fund"		
		Dep. Econ. and Soc..	230 00	235 00
16	Com. Sinking Fund....	Int. on Endowment.....		2,500 00
22	Auditor of State.....	Req. No. 12 O. S. U.		
		Fund	13,741 50	
	Alexis Cope, Bursar...	Students' fees	10,751 04	24,492 54
23	G. B. Kauffman.....	200 store-room cards..	1,000 00	
	Natl. Brick Mfg. Assn.	Scholarship Dep. Cer..	250 00	1,250 00
Oct. 13	F. C. Clark.....	"Bus. Men's Fund"		
		Dept. Econ.	70 00	
	Emerson McMillin	Endow. Fellow in		
		Astron	300 00	
	L. T. Williams.....	Back rent Chap. House	75 00	445 00
28	G. B. Kauffman.....	Sale store-room cards	250 00	
	Alexis Cope, Bursar...	Students' fees	877 72	1,127 72
Nov. 2	Auditor of State.....	Req. No. 13 O. S. U.		
		Fund	14,019 75	
	Auditor of State.....	Req. No. 14 O. S. U.		
		Fund	34,075 00	48,094 75
12	G. B. Kauffman.....	1st and 2nd inst. rent,		
		1898-9		90 00
29	B. F. Thomas.....	1st and 2nd inst. rent,		
		1898-9	85 00	
	Alexis Cope, Bursar...	Students' fees	158 75	243 75
30	Com. Sinking Fund....	Int. on Endowment		7,400 00
Dec. 8	Auditor of State.....	Req. No. 15 O. S. U.		
		Fund	14,009 36	
	Auditor of State.....	Req. No. 16 O. S. U.		
		Fund	5,700 00	
	C. W. Mesloh.....	9th and 10th inst. rent,		
		1897-8	36 00	19,745 36
26	Com. Sinking Fund....	Int on Endowment.....	2,814 99	
	Alexis Cope, Bursar...	Students' fees	135 44	
	W. Worcester.....	Broken glass Dorm....	50	2,950 93
30	W. H. Anderson & Co.	309 vol. Law Reports..		309 00
1899.				
Jan. 13	Emp. Lia. Ins. Corp...	Ins. overpaid	5 77	
	F. C. Clark.....	"Bus. Men's" Fund...	50 00	
	B. F. Thomas.....	3rd and 4th inst. rent,		
		1898-9	85 00	
	G. B. Kauffman.....	Store-room cards	250 00	
	G. B. Kauffman.....	3rd and 4th inst. rent,		
		1898-9	90 00	
	Alexis Cope, Bursar...	Students' fees	4,138 80	4,619 57
27	Com. Sinking Fund....	Int. on Endowment	2,750 00	
	Auditor of State.....	Req. No. 17 O. S. U.		
		Fund	14,366 52	17,116 52

STATEMENT I—Continued.

Date.	From whom received.	For what purpose.	Amount.	Total.
1899.				
Feb. 20	Com. Sinking Fund... Telfair & Telfair.....	Int. on Endowment .. Deeds to J. C. Shannon, J. Haley, J. P. Fisher, Act. March 14, 1889 .....	..... 6 00	2,000 00
	B. F. Thomas.....	5th inst. rent, 1898-9..	42 50 .....	.....
	C. W. Mesloh.....	11th and 12th inst. rent, 1897-8	36 00 .....	.....
	Telfair & Telfair.....	Deed, S. E. Hawes, Act March 14, 1889.	2 00 .....	.....
	F. M. Moore.....	Deed, A. A. Sheley, Act March 14, 1899.	2 00 .....	.....
	Clevinger & Huls.....	Deed, A. J. Early, Act March 14, 1889	2 00 .....	.....
	F. M. Moore.....	Deed, F. M. Moore, Act March 14, 1889.	2 00 .....	.....
	Alexis Cope, Bursar...	Students' fees	7,655 60 .....	.....
	R. H. McCloud.....	Deed, O. K. West, Act March 14, 1889.	2 00	7,750 10
March 3	Auditor of State.....	Req. No. 18 O. S. U. Fund .....	.....	14,297 67
	C. W. Mesloh.....	1st and 2nd inst. rent.	36 00 .....	.....
	C. U. Tel. Co.....	Overpaid charges	5 50 .....	.....
	G. W. Noel.....	Note, I. G. Noel for lot 109, Scioto Co., and pt. lot 54, Pike Co	194 62	236 12
28	C. A. Grate.....	Broken apparatus	3 65 .....	.....
	Auditor of State.....	State levy	14,241 50 .....	.....
	Telfair & Telfair.....	Deed for V. M. lands.	2 00 .....	.....
	Recorder Pike Co.....	" " " "	2 00 .....	.....
	Prof. Hitchcock.....	Scrap iron and brass.	3 35 .....	.....
	C. W. Mesloh.....	Rents	36 00	14,288 50
April 11	G. C. Rittenour.....	Deed, Act March 14, 1889	2 00 .....	.....
	H. Alkire.....	Deed, Act March 14, 1889	2 00 .....	.....
	B. F. Thomas.....	6th, 7th and 8th inst. rent, 1898-9	127 50 .....	.....
	Alexis Cope, Bursar...	Students' fees	3,511 02	3,642 52
	Auditor of State.....	Req. No. 20 O. S. U. Fund .....	.....	13,961 50
	Com. Sinking Fund...	Int. on Endowment ..	.....	4,000 00
May 5	Auditor of State.....	Req. No. 21 O. S. U. Fund .....	.....	13,894 00
	Col. Gas Co.....	Rebate	7 95 .....	.....
	F. C. Clark.....	Donation Dept. Econ.	25 00 .....	.....
	G. W. Knight.....	5th, 6th, 7th, 8th, and 9th inst. rent, 1897-8	187 50 .....	.....
	J. M. Reeves.....	Deed, Act March 14, 1889	2 00 .....	.....
	R. M. Saal.....	Deed, Act March 14, 1889	2 00	224 45
22	G. B. Kauffman.....	5th, 6th, 7th and 8th inst. rent, 1898-9...	180 00 .....	.....
	G. B. Kauffman.....	Sale 50 store-room cards	250 00	430 00

STATEMENT I—Concluded.

Date.	From whom received.	For what purpose.	Amount.	Total.
1899.				
May 22	Auditor of State.....	Req. No. 22 O. S. U. Fund	13,884 00	.....
	Auditor of State.....	Req. No. 23 O. S. U. Fund	9,075 00	22,959 00
27	Feder, Holtzman & Co.	Proceeds \$10,000 re- funding bonds		10,797 75
June 17	Alexis Cope, Bursar...	Students' fees	769 08	.....
	G. B. Bitzer.....	Deed to Ellen Blair et al.....	2 00	.....
	G. B. Bitzer.....	Deed to E. A. Drake..	2 00	.....
	Standard Oil Co.....	Empty barrels	7 20	.....
	C. W. Mesloh.....	5th and 6th inst. rent, 1898-9	36 00	.....
	J. A. Bownocker.....	Alumni luncheon.....	38 00	.....
	R. E. Alsapche.....	Duplicate diploma ...	1 50	855 78
	Auditor of State.....	Req. No. 24 O. S. U. Fund		792 35
28	Com. Sinking Fund...	Int. on Endowment...	7,799 85	.....
	Kilbourne & J. Mfg. Co.	Overcharge on invoice	1 50	.....
	W. H. Gilmore.....	Diploma fee (Class '98)	5 00	.....
	G. B. Kauffman.....	Sale store-room cards.	300 00	.....
	Clinton Nat. Bank.....	Overpm't of interest ..	562 50	.....
	B. F. Thomas.....	Breakage of instrum'ts	12 00	8,680 85
	Total receipts.....	.....	.....	\$277,573 06

STATEMENT II.

DETAILED STATEMENT OF DISBURSEMENTS BY F. W. PRENTISS, TREASURER,
DURING FISCAL YEAR ENDING JUNE 30, 1899.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 30	By balance			\$495 36
July 5	Clinton Natl. Bank....	500 I. R. stamps	1	\$10 00
7	R. M. Round, P. M....	Postage	2	50 00
8	Acme Paving Co.....	Pavement	3	215 00
	Am. Battery Co.....	Elect. app.....	4	47 90
	Am. Dist. Tel. Co.....	Messenger service	5	2 00
	Am. Harrow Co.....	Casting	6	1 00
	W. Atkinson	7 2-3 hrs. labor	7	1 38
	J. W. Atwood.....	Livery service	8	3 00
	D. Bacon.....	Corn	9	36 27
	C. E. Barnet.....	Clerical services	10	76 00
	L. L. Beattie.....	Sewing	11	75
	H. S. Belden.....	40 hrs. labor	12	5 00
	Blackw'd, Green & Co..	Hardware sundries	13	35 29
	Thos. Boude.....	10 1-5 days' labor	14	15 30
	Borger Bros. & Co....	Ash pit, door and boiler...	15	430 00
	E. Bradford	62½ hrs. work.....	16	25 00
	E. Bradley	Farming implements	17	4 38
	H. Braun Sons & Co..	Oil, etc.....	18	3 10
	J. C. Britton.....	20 hrs. labor	19	3 00
	H. E. Brown & Sons..	Material and labor	20	8 75
	Brown, Manly Pl'w Co.	1 cultivator	21	15 00
	Bryson, Bruba'k'r & Co	Insurance	22	35 18
	Wm. Burdell, Jr.....	Harness supplies	23	13 15
	F. C. Caldwell.....	Salary and cash adv.....	24	142 51
	Cap. City Mch. Wks..	Hardware sundries	25	36 80
	C. T. Howe.....	Music for com.....	26	32 00
	J. P. Carlile.....	Cement	27	2 50
	Cent. Ohio Paper Co..	Printing and stationery ...	28	30 48
	Cent. U. Tel. Co.....	Telephone service	29	44 40
	W. I. Chamberlain....	Exp. meet'g trustees July 6	30	13 15
	Champlin Ptg. Co.....	Printing and stationery ...	31	36 20
	F. Charles	Hauling	32	2 25
	Cherington P. & E. Co.	Dater, etc.....	33	1 60
	Chittenden Hotel Co..	Board of C. W. Hiatt	34	4 25
	G. W. Clarke & Co....	Lumber	35	3 00
	E. A. Cole & Co.....	Coal	36	3 11
	H. Cole & Co.....	Blue print paper	37	1 00
	Col. Buggy Co.....	Buggy	38	80 00
	Col. Cabinet Co.....	Desks	39	32 90
	Col. Gas Co.....	Mantels, etc.....	40	4 20
	Col. Machine Co.....	Machine parts	41	5 28
	Col. Rubber & Bltg. Co.	Hose, etc.....	42	3 18
	Col. Supply Co.....	Supplies	43	8 90
	Col. Tent & Awn. Co..	Canvass	44	9 00
	Col. Transfer Co.....	Coupe service	45	1 75
	A. F. Conradi.....	91½ hrs. labor	46	11 44
	O. T. Corson.....	Advertising	47	22 50
	G. D. Cross Lumber Co.	Lumber	48	11 56
	Crystal Ice Mfg. Co..	Ice	49	3 85
	C. E. Cummings.....	Lichens	50	3 10
	L. Davis & Son.....	Fencing	51	20 30
	DeLaval Separator Co.	Separator	52	300 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
July 8	J. Dewey & Co.....	Lumber	53	10 60
	A. Earl	"	54	40 12
	Edgar P. Kaolin Co...	Clay	55	7 25
	Chas. Engelhard.....	Scientific instruments.....	56	131 75
	Engelke & Bigelow....	Frieght and cartage	57	31 85
	W. Erdman	40 hrs.' labor	58	6 00
	J. A. Erner & Co.....	Labor and material	59	34 75
	M. Evans	Flowers	60	8 75
	H. A. Farnham.....	180 hrs.' labor	61	9 00
	F. A. Faunce.....	Painting and papering	62	120 18
	F. A. Fish.....	80 hrs.' labor	63	10 50
	Fitzpatrick & Co.....	Pipe covering and boiler....	64	369 36
	F. E. Fleischer.....	202 hrs.' labor	65	25 25
	C. D. Fleming.....	Shade trees	66	15 00
	Franklin Toil. Sup. Co.	Towels furnished	67	17 85
	A. G. Fritchey.....	Soap, etc.	68	4 60
	R. W. Funk.....	144 hrs.' work.....	69	21 60
	Gabriel & Schall.....	Paris white	70	24 71
	H. Gamper	210½ hrs.' labor	71	31 55
	C. Garner	Corn	72	107 35
	J. J. Gheen.....	Plastering	73	86 45
	W. Gilmore	33 hrs.' labor	74	4 12
	H. Goldsmith	Repairs to band instrum'ts..	75	4 50
	Green, Joyce & Co....	Ribbon	76	3 00
	C. E. Gregory.....	Voltmeter	77	12 50
	A. F. Hall.....	1 mo. and 90 hrs.' labor... 78	82 50	
	Far. Handy Wag. Co..	1 wagon	79	22 50
	Hanna Pt. Mfg. Co..	Oil, etc.	80	1 10
	Hann & Adair.....	Printing	81	22 20
	C. W. Harper.....	Etching, etc.....	82	15 85
	Edw. Hauffe.....	40 hrs.' labor	83	10 00
	P. Hayden Sd. Hd. Co.	Hdwe	84	22 99
	Hayden's M. & M. Co.	Clay	85	3 00
	J. Hertner	32 hrs.' labor	86	4 00
	L. Hoster Brew. Co...	Sprouts	87	31 02
	Jno. Immel & Son....	Repairs to milk wagon....	88	23 25
	F. Ingham	26 hrs.' labor	89	3 90
	Maude D. Jeffrey....	Clerical labor	90	6 25
	F. S. Johnson.....	"	91	12 00
	Kauffman, Lattimer Co	Chemicals	92	57 32
	M. Keith, Jr.....	23 hrs.' labor	93	5 75
	G. D. Kellicott.....	Clerical services	94	6 25
	Kelton & Converse....	Lumber	95	76 66
	Kilbourne & J. Mfg. Co	Castings	96	9 75
	Kimball & Matthews..	Chemicals	97	7 56
	Krauss, Butler & B. Co.	Shades, etc	98	313 04
	W. E. Lamb.....	50 hrs.' labor	99	7 50
	Landon Pt. & Pub. Co.	Printing	100	10 15
	E. C. Livenspire.....	Horseshoeing	101	14 10
	A. W. Livingston's Sns	Ensilage and peas	102	2 75
	A. E. Loeb.....	146 hrs.' labor	103	25 55
	N. W. Lord.....	Cash adv. for gas, etc.....	104	6 80
	Mitchell Adv. Co.....	Time card	105	1 00
	Chas. Mooney	16½ hrs.' labor	106	2 52
	A. D. Morely.....	12 "	107	3 00
	Murray City Coal Co..	Coal	108	443 79

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
July 8	Jno. McAllister	Repair work	109	51 34
	McAllister, M. & Co..	Furniture, etc.	110	26 41
	McClelland & Co.	1 band box	111	1 12
	R. E. McIntosh.	77½ hrs.' labor	112	9 60
	F. McKinney	32 hrs. as guide	113	4 00
	A. McLaughlin.	38 hrs. work	114	5 70
	Nitschke Bros	Printing, etc.	115	60 95
	K. Nurian	40 hrs. labor	116	6 00
	Edw. Orton, Jr.	Cash adv. for labor	117	2 12
	F. Pavlicek	52 hrs. guide	118	6 50
	Payne, McD. Hdw. Co.	Hardware	119	40 78
	M. Peck	2 days' work	120	3 00
	Penn. Fuel Co.	Coal	121	8 40
	J. C. Perry	12 hrs.' labor	122	1 63
	Pickhardt & Kutroft..	Dye	123	1 00
	B. D. Potts	Hose	124	1 00
	Queen & Co.	Scientific instruments	125	36 10
	Quinius & Ridenour..	File cases	126	1 00
	E. S. Ream	5 hrs.' labor	127	63
	L. S. Wells	Mdse	128	50
	J. M. & W. Westwater.	Labor and material	129	16 50
	Z. L. White & Co.	Cheese cloth	130	1 00
	A. H. Reid	Dairy mchy	131	4 30
	J. S. Rine	Painting	132	33 50
	J. L. Roberts	15½ hrs.' labor	133	1 94
	F. O. Schoedinger....	Zinc trays	134	3 85
	Schoedinger, F. & Co..	Hdwe	135	11 15
	R. J. Seymour	124 hrs.' guide	136	15 50
	Schilling Fdy. Co.	Castings	137	35 40
	G. S. Singer	2 burners	138	70
	D. F. Singleton	Brick laying	139	2 25
	C. C. Sleffel	Paint	140	2 00
	A. H. Smythe	Mail basket	141	40
	Southard & Wolf	Stationery	142	1 50
	Spahr & Glenn	Lining diplomas	143	23 50
	J. R. Spurrier	Labor and material	144	3 10
	J. Stanbrook	13 days' labor	145	19 50
	Standard Oil Co.	Oil	146	93 33
	G. E. Stechert	Books and magazines	147	17 71
	E. Stoughton	32 hrs.' janitor	148	4 80
	Strobridge Lith. Co.	Diplomas	149	105 00
	J. H. Randall	90½ hrs.' labor	150	22 63
	Tallmadge Hdw. Co.	Hdwe	151	38 79
	Taylor Mant. & G. Co.	Remodeling prest's office....	152	151 00
	T. T. Tress	Repair on clocks	153	4 25
	G. Trowbridge	110 hrs.' labor	154	27 50
	Vogelgesang Furn. Co.	Repair furnace	155	6 19
	F. R. West	37 hrs.' guide	156	4 62
	West U. Tel. Co.	Teleg. service	157	7 05
	A. F. Wilcox	254 hrs.' labor	158	38 10
	C. Woodruff	Labor and material	159	106 60
	Yost & Packard	Architect's service	160	100 24
	Webb Sta. & Ptg. Co.	Sundries	161	21 10
	J. Weisheimer	Grinding corn	162	9 90
	Col. Gas Co.	Gas	163	58 43
	Jos. Garretson	Salary, June, 1898.	164	21 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Aug. 4	Schoedinger, F. & Co..	Hardware	219	7 55
	Bausch L. Opt. Co....	Nosepieces	220	10 38
	C. T. Pfaff & Co.....	1 shade	221	2 50
	W. E. Lamb.....	Labor	222	7 35
	H. Gamper	"	223	5 25
	Edw. Orton	Sundries	224	15 35
	Col. Gas Co.....	Coke	225	77 01
	Monypeny, H. Co....	Brushes and blacking	226	4 40
	A. H. Barber Mfg. Co.	Machine parts	227	293 29
	B. F. Thomas.....	Aparatus	228	42 90
	C. E. Haigh.....	X-ray apparatus	229	11 00
	J. B. Colt & Co.....	Apparatus	230	65 50
	Kraus, Butler & B. Co.	Shades	231	2 50
	Am. Grange Bulletin..	Advertising	232	16 80
	Sanders Pubg. Co.....	"	233	29 40
	C. A. Williams' Studio.	Prints	234	3 12
	J. Dewey & Co.....	Lumber	205	6 55
	Davis & Son.....	Gate and fence	236	14 10
	Jo. Com. Med. & V. A.	Books	237	24 00
	Haussman & Dunn....	Instruments	238	9 35
	Harper Ill. Syn.....	Adv. cuts	239	16 45
	W. H. Scott.....	Expenses Ohio Coll. Ass'n.	240	10 50
	Domestic Laundry ..	Laundrying	241	63
	Webb Sta. & Ptg. Co..	Stationery	242	66 00
	India Alkali Wks.....	Savogran	243	19 18
	T. E. French.....	Lettering cts.....	244	1 80
	G. W. Knight.....	Expenses visit High School.	245	1 75
	Col. Sewer Pipe Co....	Drain tile	246	16 61
	Cent. U. Tel. Co.....	Telephone service	247	64 50
	Cher. Ptg. & Eng. Co..	Rubber stamps	248	1 00
	Standard Oil Co.....	Oil	249	30 60
	Tracy Wells Co.....	Mops, etc.....	250	6 00
	R. L. Polk & Co.....	City directory	251	5 00
	J. Q. Adams.....	Plumbers' supplies	252	40
	Am. Dist. Tel. Co.....	Signal boxes	253	27 00
	Seraphim B. Book Co.	Books and blanks	254	123 95
	G. E. Stechert.....	Books	255	194 88
	E. H. Barton.....	Labor	256	16 00
	Mathias Keith, Sr....	"	257	18 40
	J. Penn.....	Drayage	258	1 25
	Am. Trot. Reg. Assn..	Year books	259	16 50
	Boston Book Co.....	Books	260	70 74
	A. E. Loeb.....	Labor	261	29 57
	A. H. Smythe.....	Office supplies	262	9 50
	Ohio Furn. Co.....	Mirror	263	1 00
	The Globe Co.....	Drawer cards	264	3 50
	Boston Book Bdg. Co..	Binding	265	1 25
	E. Thompson Co.....	Books	266	42 00
	Robt. Clarke Co.....	"	267	10 00
	West Pub. Co.....	Magazines	268	37 50
	Helman, Taylor Co....	Books	269	20 76
	Macmillan & Co.....	"	270	1 00
	Burrows Bros. Co....	"	271	17 49
	Rubel Bros	"	272	2 50
	Tuttle, M. & Taylor...	Magazine	273	75
	J. Hopkins Press.....	Books	274	75
	D. Appleton & Co.....	"	275	5 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Aug. 4	L. C. Riddle.....	Labor	276	17 25
	Payne, McD. Hdw. Co.	Hardware	277	16 73
	H. E. Brown & Sons..	Printing	278	6 90
	Col. Brass Co.....	Closet fixtures	279	20 60
	Palmer & Beck.....	Labor and material	280	107 55
	M. P. Streett	"	281	146 45
	Watertown St. Eng. Co	Shieve	282	60
	A. F. Hall.....	Labor	283	31 50
	F. A. Fish.....	"	284	19 05
	G. R. Bott.....	"	285	5 25
	J. T. Frankenburg....	"	286	10 45
	Chas. Voght	Painting and papering	287	56 00
	E. Hufte	Labor	288	24 00
	Geo. Trowbridge	"	289	17 13
	C. H. Woodruff	Labor and material	290	467 39
	G. W. McNabb.....	Gasoline	291	64
	Schaffer & Budenberg.	Counter	292	16 00
	F. A. Faunce.....	Painting and papering	293	50 00
	Elec. Appliance Co....	Elec. supplies	294	15 40
	Pitts Reduction Co....	Wire	295	15 93
	J. J. Gheen.....	Plastering	296	16 30
	McClelland & Co.....	Office supplies	297	2 90
	J. M. & W. Westwater.	Elect. fixtures	298	20 00
	Cap. City Mch. Wks..	Machine parts	299	13 31
	Cent. Ohio Paper Co..	Stationery	300	39 64
	H. Braun Sons & Co..	Instruments and drugs.....	301	22 74
	A. S. W. Huffman....	Plumbers' supplies	302	13 90
	Col. Rubber & B. Co..	Mdse	303	14 19
	Miller Furn. Co.....	Furniture	304	20 50
	Col. Supply Co.....	Hdwe	305	450 73
	Murray City Coal Co..	Coal	306	15 79
	E. C. Livenspire.....	Horseshoeing, etc.....	307	9 00
	L. Fink	Papering	308	10 19
	J. Boyd	Truck	309	1 05
	R. McClure	Cases	301	47 55
	B. D. Potts	Pipe	311	35 85
	S. T. Hallsman.....	Painting	312	5 70
	J. Weisheimer	Grinding	313	6 20
	A. H. Taft.....	Bailing straw	314	53 72
	C. B. Steward.....	Meals	315	13 00
	W. A. Stephens.....	Horse training	316	10 00
	Creamery Pk. Mfg. Co.	Dairy supplies	317	103 81
	E. C. Duke.....	Sawing posts	318	5 18
	F. B. Mitchell.....	Threshing	319	32 98
	D. Bacon	Corn	320	52 45
	F. S. Johnston.....	Clerical service	321	26 05
	Hann & Adair.....	Printing	322	165 25
	Frankenberg Bros	Files	323	5 83
	Nitschke Bros	Paper and ptg.....	324	12 00
	Blackw'd, Green & Co.	Hdwe	325	21 38
	A. F. Wilcox.....	Labor	326	45 30
	G. D. Cross Lum. Co..	Lumber	327	7 68
	J. Patterson	Machine parts	328	90
	Crys. Ice M. & C. S. Co	Ice	329	1 20
	Jas. McOwen	Labor	330	16 15
	J. M. Leammon.....	Labor and team	331	16 50

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Aug. 4	B. M. Pierce.....	Labor	332	50
	C. C. Hayden.....	"	333	88
	C. N. Mooney.....	"	334	11 93
	H. L. Belden.....	"	335	7 50
	A. F. Conradi.....	"	336	6 44
	W. H. Gilmore.....	"	337	12 50
	J. C. Perry.....	"	338	2 38
	J. S. Teter.....	"	339	16 44
5	R. M. Rownd.....	Postage	340	20 00
13	C. A. Dye.....	Labor in store-room	341	78 00
	E. E. Harrold.....	"	342	60 00
8	Col. Gas Co.....	Gas	343	28 28
	T. L. Griffin.....	Sal. as ass't in Ceramics... ..	344	105 00
10	F. W. Prentiss.....	Bill Ex. G. Fock, books... ..	345	5 26
27	W. C. Mills.....	Sal. for July and Aug., 1898 ..	346	50 00
	J. H. Canfield.....	Salary for Aug., 1898.....	347	500 00
	Alexis Cope	"	348	187 50
	W. C. McCracken.....	"	349	150 00
	C. E. Barnet.....	"	350	65 00
	J. Blackford	"	351	54 17
	E. D. Cockins.....	"	352	58 33
	F. W. Prentiss.....	"	353	33 33
	Mrs. E. R. Hubler....	"	354	10 00
	Chas. Law	"	355	54 17
	Wm. Standley	"	356	50 00
	Benj. Lebay	"	357	50 00
	Geo. Rose	"	358	65 00
	H. Martz	"	359	45 00
	Jas. Kelley	"	360	35 00
	A. Chantler	"	361	40 00
	J. Brown	"	362	40 00
	T. Osborn	"	363	40 00
	D. D. Geren.....	"	364	40 00
	W. Whitestone	"	365	40 00
	H. Chantler	"	366	40 00
	J. Conrad	"	367	40 00
	M. N. Cook.....	"	368	40 00
	W. Trowsell.....	"	369	20 00
	F. J. Tyler	"	370	40 00
	A. G. McCall.....	"	371	20 00
	J. C. Perry.....	"	372	8 33
Sept. 5	Smith Premier Co.....	1 type writer and table.....	373	75 00
	W. I. Chamberlain....	Exp. com. meet'g this day.. ..	374	10 50
6	T. J. Godfrey.....	"	375	9 50
9	Col. Gas Co.....	Gas	376	26 62
	J. C. Eno.....	Labor	377	6 25
	C. C. Wilcox.....	"	378	3 75
	H. Geren	"	379	3 75
	A. B. Myers.....	"	380	2 50
	A. Fleischer	"	381	1 00
	F. E. Fleischer.....	"	382	17 31
	K. Nurian	"	383	13 25
	J. H. Burgess.....	"	384	12 13
	R. Fitts.....	"	385	19 35
	H. L. Belden.....	"	386	21 31
	A. F. Wilcox.....	"	387	37 95

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Sept. 9	C. N. Mooney.....	Labor	388	31 27
	J. S. Teter.....	"	389	33 00
	W. H. Gilmore.....	"	390	26 63
	D. Donovan.....	Labor and team	391	148 20
	R. H. Cunningham ..	Labor	392	12 03
	J. L. Roberts.....	"	393	8 72
	Peacock & King.....	Paper	394	30 34
	J. H. Randall.....	Carpentry	395	10 00
	Burgess S. Furn. Co..	Repairs	396	75
	Sherwood Mfg. Co....	Cleaner	397	35 00
	Griffing Iron Co.....	Radiators	398	106 50
	W. E. Case.....	Labor	399	10 50
	W. Britton.....	"	400	10 50
	Mitchell & Son.....	Marble	401	14 00
	Bourne & K. Mfg. Co.	Gaskets	402	3 13
	F. A. Faunce.....	Painting	403	25 00
	The M. C. Lilley & Co.	Mdse	404	2 25
	Col. Sew. Pipe Co....	Sewer pipe	405	3 44
	J. C. Perry.....	Sal. for Aug., 1898, bal....	406	4 17
	M. P. Streett.....	Masonry	407	20 40
	Jas. Stainbrook	Cleaning boiler	408	25 00
	Manhattan Concrete Co	Slate	409	51 84
	L. M. Ferguson.....	Rugs	410	14 00
	F. F. Bonnet.....	Clocks	411	8 75
	C. T. Phillips.....	Paper	412	53 45
	Col. Pt. Mfg. Co....	Mdse	413	64 87
	McAllister, M. & Co..	Chairs	414	93 88
	J. W. Coulson & Co..	Paper paste	415	9 50
	J. E. Deeter.....	Moving barn	416	55 00
	Col. Rubber & B. Co..	Supplies	417	197 00
	Lewis Fink.....	Picture rail	418	3 48
	Chas. Vogt	Painting and papering	419	347 64
	J. J. Gheen.....	Plastering	420	17 00
	Col. Brass Co.....	Supplies	421	125 28
	Murray Iron Works...	Hdwe	422	153 39
	C. R. Hall.....	Labor	423	11 97
	H. Judd	Carpentry	424	20 25
	C. E. Barnet.....	Amanuensis work	425	7 12
	Miller Furn. Co.....	Stools	426	3 25
	Jones & Laughlin....	Steel	427	5 58
	Fkl. Toilet Sup. Co....	Laundrying	428	1 25
	W. Atkinson.....	Clerical work	429	1 20
	H. Cole	Parchment	430	1 00
	Jeffrey Mfg. Co.....	Rope	431	6 04
	E. H. Bailey.....	Labor	432	1 80
	W. A. Knight.....	Labor in lab.....	433	12 00
	W. Erdman.....	Carpentry	434	4 55
	Builders Iron Fdy....	Venturi tube	435	75 00
	Dunn, Taft & Co.....	Plush	436	1 11
	T. Buchanan Co.....	Machinery	437	4 92
	L. S. Starrett Co.....	Tools	438	18 49
	J. Wilckes	Econometer	439	65 00
	C. Riddle	Clerical work	440	1 35
	W. Bohannon.....	Locks	441	91
	Simmons Hdw. Co....	Hdwe	442	57 65
	J. E. Wing.....	Model of barn	443	6 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Sept. 9	Deering Harvester Co.	Tools	443	58 79
	J. Weisheimer	Grinding corn	445	2 50
	S. T. Hallsman	Painting	446	24 30
	S. Hard	Corn	447	20 05
	Kilbourne & J. Mfg. Co	Cart	448	6 50
	W. L. Whitehead	Cows	449	90 00
	J. H. Canfield	Cow	450	40 00
	J. Breck & Sons	Rake	451	67
	K. F. Kellerman	Labor on herbarium	452	12 30
	Cent. Ohio Paper Co.	Paper	453	28 80
	E. Leitz	Microscope	454	112 50
	L. C. Riddle	Mounting plants	455	21 00
	C. Bradley	Repairs	456	90
	C. Garner	Corn	457	16 28
	R. A. McClure	Sterilizer	458	24 00
	E. C. Livenspire	Horseshoeing	459	11 40
	R. J. Seymour	I. R. stamps	460	12 00
	E. C. Kissinger	Lime	461	4 10
	W. Burdell, Jr.	Harness	462	23 90
	F. S. Johnston	Clerical work	463	32 40
	H. S. King	Labor	464	36 08
	Beck & Orr	Blank books	465	3 00
	L. E. Wilson	Labor	466	33 18
	E. E. Harrold	Work in store-room	467	40 00
	C. A. Dye	"	468	32 00
	A. F. Fenstermaker ..	Papering and ptg	469	23 75
	Am. Battery Co.	Elect. supplies	470	19 08
	J. A. Brashear	Cleaning instruments	471	5 00
	F. F. Howard	Work in library	472	4 50
	P. Hutton	"	473	6 00
	Downing & Co.	Book	474	12 36
	Olive Jones	Charges adv. on books	475	2 00
	Taylor Mant. & G. Co.	Book cases	476	170 00
	Z. L. White & Co.	Screen	477	3 00
	C. Wilcox	Work in library	478	6 00
	Orange Judd & Co.	Advertising	479	15 00
	M. V. Dick Mgr.	"	480	10 00
	Westbote Co	Printing	481	133 49
	Nat. Stockman & F. .	Advertising	482	50 40
	C. W. Harper	Advertising cuts	483	1 50
	D. C. Beggs Co.	Oil cloth	484	75
	G. Bruder	Salary band leader	485	30 00
	R. J. Seymour	Guide service	486	5 25
	F. C. McKinney	"	487	20 00
	W. Bebb	Painting	488	86 00
	Mrs. E. R. Hubler	Clerical work	489	7 25
	W. H. Siebert	Expenses trip for library ..	490	26 93
	Col. Dispatch	Advertising	491	90
	O. S. Journal	"	492	75
	W. S. Orvis	Mineral ink	493	90
	Webb Sta. & Ptg. Co. .	Mdse	494	25 00
	J. M. & W. Westwater.	Burners	495	2 00
	Nitschke Bros	Printing	496	37 10
	Kauffman Lattimer Co.	Disinfectant	497	42 00
	Cent. U. Tel. Co.	Telephone service	498	11 60
	Smith P. Typewr. Co. .	Repairs	499	3 75

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Sept. 9	Postal Tel. Cable Co..	Teleg. service	500	25
	Am. Dist. Tel. Co.	Fire alarm boxes	501	32 50
	W. U. Tel. Co.	Telegraph service	502	4 52
	J. A. Erner & Co.	Elec. supplies	503	3 87
	Penna. Fuel Co.	Coal	504	8 40
	Pitts. Clay Mfg. Co.	Pipe cover	505	9 75
	Golding & Sons Co.	Pebbles	506	4 50
	Bonnot & Co.	Repairs	507	10 00
	E. Orton, Jr.	Labor	508	25 87
	Cap. City Mch. Wks.	Tools, hdwe, etc.	509	189 82
	J. C. Perry.	Labor	510	13 64
	Col. Supply Co.	Supplies	511	116 35
	Tallmadge Hdw. Co.	Hdwe supplies	512	30 56
	Blackw'd, Green & Co.	"	513	60 25
	Stitt, Price & Co.	Clay and lime	514	2 50
	Engelke & Bigelow.	Freight and cartage	515	24 93
	C. H. Woodruff.	Carpentry	516	61 25
	G. W. Towbridge.	"	517	63 00
	Schoedinger, F. & Co.	Tools and hdwe.	518	12 25
	B. D. Potts.	Hdwe	519	239 90
	Acme Paving Co.	Paving	520	105 12
	Palmer & Beck.	Spouting, etc.	521	49 53
	F. Brewer	Labor	522	18 00
	T. Boude	"	523	12 00
	Standard Oil Co.	Oil	524	9 64
	Kelton & Converse.	Lumber	525	23 43
	Champlin Ptg. Co.	Printing	526	44 86
	Flint & W. Mfg. Co.	Tank	527	27 53
	Elliot & Maclean.	Lumber	528	34 65
	A. H. Smythe.	Office supplies	529	23 00
	F. Charles	Freight and cartage	530	7 77
	J. B. Colt & Co.	Lantern	531	25 00
	J. Garretson	Sal. for Aug., 1898.	532	38 25
14	R. C. Purdy.	Chargeable to scholarship in Ceramics	533	11 50
15	W. D. Gibbs.	Salary for summer, 1898.	534	100 00
16	R. M. Rownd, P. M.	Postage	535	10 00
	C. H. Woodruff.	Fitting up chem. lab.	536	200 00
17	M. J. Kellenberger.	Asst. dept. dom. scie.	537	4 75
	H. A. Weber.	Salary for Sept., 1898.	538	225 00
19	A. C. Purdy.	Ceramics scholarship	539	5 00
21	J. McL. Smith.	Exp. meet'g, 21 Sept.	540	6 50
	W. I. Chamberlain.	"	541	13 30
	L. B. Wing.	"	542	14 15
24	W. C. Weir.	Sal. Sept. inst., 1898.	543	20 00
	J. H. Canfield.	Salary for Sept., 1898.	544	500 00
	Alexis Cope	"	545	187 50
	C. E. Barnett.	"	546	65 00
	Jean Blackford.	"	547	54 17
	E. D. Cockins.	"	548	58 33
	W. C. McCracken.	"	549	150 00
22	T. F. Hunt.	Salary Sept. 1898, inst.	550	250 00
24	D. A. Kohr.	"	551	10 00
22	A. M. Bliele.	"	552	225 00
	W. A. Kellerman.	"	553	225 00
	W. McPherson	"	554	225 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Sept. 22	C. N. Brown.....	Salary, Sept. 1898, inst.....	555	225 00
	A. C. Barrows.....	" ".....	556	225 00
	Edw. Orton.....	" ".....	557	225 00
	E. A. Eggers.....	" ".....	558	225 00
	J. R. Smith.....	" ".....	559	225 00
	G. W. Knight.....	" ".....	560	225 00
	W. R. Lazenby.....	" ".....	561	225 00
	F. E. Sanborn.....	" ".....	562	225 00
	S. C. Derby.....	" ".....	563	225 00
	W. F. Hunter.....	" ".....	564	225 00
	R. D. Bohannon.....	" ".....	565	225 00
	W. T. Magruder.....	" ".....	566	225 00
	J. P. Gordy.....	" ".....	567	225 00
	W. H. Scott.....	" ".....	568	225 00
	B. F. Thomas.....	" ".....	569	225 00
	J. V. Denney.....	" ".....	570	225 00
	B. L. Bowen.....	" ".....	571	225 00
21	H. Osborn.....	" ".....	572	225 00
	N. W. Lord.....	" ".....	573	200 00
	F. A. Ray.....	" ".....	574	200 00
	G. B. Kauffman.....	" ".....	575	200 00
	E. Orton, Jr.....	" ".....	576	180 00
	J. N. Bradford.....	" ".....	577	180 00
	G. W. McCoard.....	" ".....	578	160 00
	H. C. Lord.....	" ".....	579	160 00
	E. A. Hitchcock.....	" ".....	580	150 00
	C. P. Linhart.....	" ".....	581	160 00
	D. S. White.....	" ".....	582	150 00
	W. D. Gibbs.....	" ".....	583	140 00
	P. G. Bowman.....	" ".....	584	140 00
	F. C. Caldwell.....	" ".....	585	140 00
	F. C. Clark.....	" ".....	586	135 00
	W. H. Page.....	" ".....	587	135 00
	S. A. Norton.....	" ".....	588	120 00
	R. I. Fulton.....	" ".....	589	120 00
	W. H. Siebert.....	" ".....	590	120 00
	O. B. Jones.....	" ".....	591	120 00
	J. E. Boyd.....	" ".....	592	120 00
	E. B. Kinkead.....	" ".....	593	110 00
	J. R. Taylor.....	" ".....	594	110 00
	C. E. Sherman.....	" ".....	595	100 00
	T. E. French.....	" ".....	596	100 00
	C. W. Mesloh.....	" ".....	597	100 00
	C. L. Arnold.....	" ".....	598	100 00
	K. D. Swartzel.....	" ".....	599	100 00
	A. W. Hodgman.....	" ".....	600	100 00
	W. A. Knight.....	" ".....	601	95 00
	C. W. Weick.....	" ".....	602	95 00
	C. C. Sleffel.....	" ".....	603	95 00
	J. H. Schaffner.....	" ".....	604	90 00
	C. W. Foulk.....	" ".....	605	90 00
	J. A. Bownocker.....	" ".....	606	90 00
	C. A. Dye.....	" ".....	607	90 00
	W. L. Graves.....	" ".....	608	90 00
	J. S. Hine.....	" ".....	609	85 00
	F. L. Landacre.....	" ".....	610	85 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Sept. 21	A. E. Vinson.....	Salary, Sept. 1898, inst.....	611	80 00
	E. N. Van Harlingen..	" " ".....	612	80 00
	M. P. Brush.....	" " ".....	613	80 00
	C. Wissler.....	" " ".....	614	80 00
	S. M. Elliott.....	" " ".....	615	75 00
	E. O. Randall.....	" " ".....	616	70 00
	D. F. Pugh.....	" " ".....	617	70 00
	E. E. Harrold.....	" " ".....	618	70 00
	N. H. Brown.....	" " ".....	619	70 00
	E. E. Sommermeier....	" " ".....	620	65 00
	F. Ruhlen.....	" " ".....	621	60 00
	T. F. Lewis.....	" " ".....	622	60 00
24	A. F. Hall.....	" " ".....	623	60 00
	W. F. Lavery.....	" " ".....	624	60 00
	C. B. Fredericks.....	" " ".....	625	60 00
	H. Townshend.....	" " ".....	626	55 00
	J. F. Cunningham.....	" " ".....	627	54 00
	R. E. McIntosh.....	" " ".....	628	10 00
	G. D. Kellicott.....	" " ".....	629	50 00
	M. D. Jeffrey.....	" " ".....	630	50 00
	F. K. Luke.....	" " ".....	631	48 00
	D. C. Huddleson.....	" " ".....	632	50 00
	A. V. Bleininger.....	" " ".....	633	40 00
	M. Dresbach.....	" " ".....	634	30 00
	F. A. Fish.....	" " ".....	635	30 00
	A. H. McIntire.....	" " ".....	636	30 00
	E. L. Ball.....	" " ".....	637	30 00
	S. E. Rasor.....	" " ".....	638	30 00
	H. Judd.....	" " ".....	639	30 00
	F. J. Hale.....	" " ".....	640	30 00
	J. B. Parker.....	" " ".....	641	30 00
	E. L. Fullmer.....	" " ".....	642	25 00
	Robt. Fischer.....	" " ".....	643	25 00
	F. O. Clements.....	" " ".....	644	25 00
	G. W. Knight.....	" " ".....	645	25 00
	W. F. Hunter.....	" " ".....	646	25 00
	A. G. McCall.....	" " ".....	647	24 00
	L. Allen.....	" " ".....	648	40 00
	O. V. Brumley.....	" " ".....	649	20 00
	F. F. D. Albery.....	" " ".....	650	15 00
	J. H. Collins.....	" " ".....	651	10 00
	F. W. Prentiss.....	Salary Sept., 1898.....	652	33 33
	Mrs. E. R. Hubler.....	" " ".....	653	20 00
	W. C. Mills.....	" " ".....	654	25 00
	Chas. Low.....	" " ".....	655	54 17
	W. Standley.....	" " ".....	656	50 00
	B. Lebay.....	" " ".....	657	50 00
	B. F. Maag.....	" " ".....	658	30 00
	T. Boude.....	" " ".....	659	45 00
	M. Peck.....	" " ".....	660	40 00
	Geo. Rose.....	" " ".....	661	65 00
	H. Martz.....	" " ".....	662	45 00
	J. Kelly.....	" " ".....	663	35 00
	A. Chantler.....	" " ".....	664	40 00
	T. S. Edgington.....	" " ".....	665	40 00
	J. F. Longman.....	" " ".....	666	40 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Sept. 24	J. H. Brown.....	Salary Sept., 1898.....	667	40 00
	D. D. Geren.....	" ".....	668	40 00
	T. E. Osborn.....	" ".....	669	40 00
	W. Whitestone.....	" ".....	670	40 00
	H. Chantler.....	" ".....	671	40 00
	W. Townsell.....	" ".....	672	25 00
	J. C. Perry.....	" ".....	673	12 50
	J. Conrad.....	" ".....	674	40 00
	M. N. Cook.....	" ".....	675	40 00
	G. W. Elwell.....	Salary Sept., 1898, inst.....	676	40 00
	D. Flanagan.....	Refund of fees.....	677	7 50
	R. C. Purdy.....	Salary Sept., 1898, inst.....	678	20 00
	Mrs. M. J. Kellenberger	" week end'g Sept. 20.	679	4 00
	E. H. Bailey.....	" Sept., 1898, inst.....	680	15 00
	R. M. Rownd, P. M....	Stamps.....	681	8 50
	V. E. Kellicott.....	Coll. of Odonata.....	682	300 00
	Paul Jones.....	Exp. meet'g trustees.....	683	5 45
	J. H. Vosskuehler.....	Salary Sept., 1898, inst.....	684	30 00
29	Mrs. M. J. Kellenberger	" week end'g Sept. 29,		
		1898.....	685	4 00
Oct. 1	W. G. Worcester.....	Refund of fees, soldier.....	686	4 00
	J. Garretson.....	Salary Sept., 1898.....	687	36 00
3	R. M. Rownd, P. M....	Postage for library.....	688	25 00
4	R. J. Seymour.....	Int. Rev. stamps.....	689	10 00
8	F. J. Pavlicek.....	Guide and mess. service....	690	7 00
	F. C. McKinney.....	" ".....	691	6 25
	M. Snow.....	" ".....	692	1 00
	F. R. West.....	" ".....	693	6 75
	Press Post Ptg. Co....	Advertising.....	694	2 25
6	Mrs. M. J. Kellenberger	Services as maid.....	695	4 00
8	Cent. Ohio Oil Co....	Grease.....	696	3 25
	Col. Dispatch.....	Advertising.....	697	1 50
	O. S. Journal Co.....	".....	698	1 50
	Cher. Ptg. & Eng. Co..	Dater.....	699	1 00
	Quinius & Ridenour...	Files.....	700	1 00
	Tracy Wells Co.....	Brooms, etc.....	701	21 32
	Southard Ptg. Co....	Printing.....	702	1 50
	West. Union Tel. Co..	Telegrams.....	703	3 57
	Cent. U. Tel. Co.....	Telephone service.....	704	75 73
	Mrs. E. R. Hubler.....	Clerical work.....	705	15 25
	A. McLaughlin.....	" ".....	706	6 37
	Postal Tel. Cable Co..	Telegraph service.....	707	1 96
	Am. Dist. Tel. Co....	Signal box rent.....	708	27 00
	W. S. Orvis.....	Mimeo paper.....	709	1 75
	Standard Oil Co.....	Oil.....	710	7 46
	Eaton Mch. Wks.....	Forging.....	711	2 85
	Webb Ptg. & Sta. Co..	File boxes.....	712	24 50
	J. W. Bannon.....	Printing brief.....	713	28 00
	Kilbourne Jones Co..	Hardware.....	714	50
	H. J. Holcomb.....	Painting.....	715	9 00
	Batterson Dec. House.	Decorating rooms.....	716	128 00
	D. Spencer & Son....	Carpentry and masonry....	717	104 00
	Battle Cr. St. Pum. Co.	Valve regulator.....	718	55 00
	J. Schofield.....	Paints.....	719	4 75
	C. T. Phillips.....	Paper and supplies.....	720	4 03
	W. H. Peters.....	Papering.....	721	25 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Oct. 8	F. F. Bonnet.....	Clock	722	5 00
	J. J. Gheen.....	Plastering	723	25 50
	W. Atkinson.....	Labor	724	2 61
	Peacock & King.....	Paper	725	5 16
	Col. Brass Co.....	Urinal	726	14 10
	Richmond Chair Co...	Chairs	727	168 13
	F. Charles	Freight and drayage	728	75
	G. R. Bott.....	Labor	729	2 75
	F. A. Fish.....	"	730	5 20
	W. Morelan.....	Carpentry	731	1 20
	F. W. Taylor.....	Labor	732	60
	Wheeler Con. & En. Co	Tubes	733	2 80
	Weekly Law Bulletin..	Advertising	734	25 00
	O. T. Corson.....	"	735	22 50
	Lawrence Pub. Co....	"	736	68 04
	R. R. Bowker.....	Books	737	7 00
	Dodd, Mead & Co....	"	738	35 00
	Library Bureau	Library supplies	739	6 50
	G. E. Stechert.....	Books	740	122 63
	Am. Trot. Reg. Assn..	"	741	3 00
	Globe Co	Library furniture	742	24 60
	H. H. Ballard.....	Slip binders	743	1 03
	Gaylord Bros	Paper	744	35
	J. Hertner	Labor	745	2 94
	Boston Book Co.....	Journals	746	61 00
	Burrows Bros. Co....	Books	747	256 47
	Seraphim Blank Bk. Co	Binding	748	170 90
	H. S. Belden.....	Labor	749	9 31
	J. Phillips	"	750	1 12
	D. W. Galehouse.....	"	751	1 25
	J. C. Long.....	"	752	1 25
	S. Meiche	"	753	2 50
	A. H. Snyder.....	"	754	1 25
	J. R. Greenlee.....	"	755	1 43
	H. A. Clark.....	"	756	1 94
	E. C. Cotton.....	"	757	1 87
	E. W. Nettleton.....	"	758	1 25
	L. A. Kolbe.....	"	759	1 18
	J. W. Brinker.....	"	760	1 25
	J. S. Jones.....	"	761	1 25
	A. E. Day.....	"	762	5 50
	W. Atherton	"	763	1 62
	J. G. Ridinger.....	"	764	62
	L. C. Hoover.....	"	765	62
	R. J. Palmer.....	"	766	1 25
	J. H. Burgess.....	"	767	5 87
	J. S. Teter.....	"	768	10 62
	W. H. Gilmore.....	"	769	5 00
	R. Fitts	"	770	8 25
	I. I. Eno.....	"	771	5 62
	K. Nurain	"	772	8 12
	C. Mooney	"	773	9 30
	A. F. Wilcox.....	"	774	40 50
	J. C. Perry.....	"	775	2 62
	A. Fleischer	"	776	12 50
	J. L. Roberts.....	"	777	62

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Oct. 8	D. Donavin	Labor	778	30 00
	Fritsch Mfg. Co.	Grate	779	2 50
	Acme Pav. Co.	Pavement	780	15 00
	E. H. Barton	Carpentry	781	2 25
	M. Keith, Sr.	"	782	1 75
	Fitzpatrick & Hoepfner	Balance, steam heating	783	15 00
	S. H. Ruhlen	Seed	784	17 50
	A. Speare's Sons & Co.	Asbestine	785	4 00
	Miller Furn. Co.	Mirrors	786	12 00
	G. W. Clarke & Co.	Lumber	787	4 00
	Cross Lumber Co.	"	788	5 94
	Wm. Burdell, Jr.	Harness	789	9 20
	C. S. Bradley	Milk can	790	2 25
	J. H. Canfield	Hay	791	9 00
	Star Milk Cooler Co. .	Strainer	792	6 40
	F. S. Johnston	Clerical work	793	24 60
	J. Dewey & Co.	Lumber	794	56 25
	J. Weisheimer	Cob meal	795	21 50
	L. Hoster Brew. Co. .	Sprouts	796	4 52
	G. W. McNall	Soap	797	4 02
	Murray City Coal Co. .	Coal	798	28 59
	J. H. Zinn	Lumber	799	10 79
	Spencer Lens Co.	Microscopes	800	120 80
	H. Cole	Geisler tubes	801	6 00
	J. P. Friez	Thermos	802	9 25
	Fauth & Co.	Repairs	803	10 75
	Landon Ptg. & Pub. Co	Printing	804	1 75
	W. C. Mills	Postage	805	2 79
	E. C. Kissinger	Sand	806	3 00
	E. T. Jenks	Locks	807	10 00
	F. O. Haines	Herbarium cases	808	229 58
	F. J. Tyler	Labor	809	4 12
	F. Detmers	"	810	14 00
	L. C. Riddle	"	811	10 50
	Scioto Fire Brick Co. .	Shade	812	1 50
	T. J. Dundon & Co.	Sawdust	813	1 00
	E. Orton, Jr.	Cash adv. for rubber	814	50
	J. McAllister	Labor	815	21 88
	Buff & Berger	Transit	816	232 25
	Howald & Conklin	Furniture	817	34 50
	Spahr & Glenn	Printing	818	5 50
	F. C. Clark	Cash adv. for drayage	819	1 00
	General Elect. Co.	Ammeter	820	11 25
	R. E. McIntosh	Labor	821	3 50
	J. A. Bownocker	Expense collecting tour	822	17 35
	Ward's Nat. Sci. Est. .	Anatomies	723	142 25
	E. G. Webster	Labor	724	97
	L. E. Wilson	"	725	17 50
	Hayden's M. & M. Co	Clay	726	1 25
	Case Mfg. Co.	Pulleys	727	8 50
	Jas. Foley & Co.	Oil cans	728	4 60
	Starrett & Co.	Rule	729	1 94
	E. A. Kinsey & Co.	Hdwe supplies	830	38 52
	P. Hayden S. Hdw. Co	Iron	831	102 56
	Col. Varnish Co.	Shellac	832	7 00
	Hanna Pt. Mfg. Co.	Paint	833	1 90

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Oct. 8	F. E. Sanborn.....	Postage	834	2 65
	F. Huddleson	Labor	835	1 50
	W. H. Anderson.....	C. C. reports	836	26 00
	E. Thompson Co.....	Encyclopædia of Law.....	837	6 00
	W. Wrigley, Jr. & Co..	Book-case	838	7 95
	H. Chantler	Freight	839	1 00
	L. McCormick	Frames	840	1 75
	A. F. Fenstermaker...	Labor	841	47 00
	Shilling Fdy. Co.....	Castings	842	3 50
	J. H. Williams.....	Forgings	843	3 75
	Jeffrey Mfg. Co.....	Rope	844	7 25
	Crosby Stm G. & V.Co.	Instruments	845	6 50
	Stitt, Price & Co.....	Cement	846	1 00
	G. W. Rightmire.....	Salary Sept., 1898, inst....	847	20 00
	Ashton Valve Co.....	Repairs	848	2 66
	J. G. Pulling & Co....	Spring	849	70
	E. Doddington	Mdse	850	16 69
	M. Grau & Co.....	Pulleys and shafting	851	17 14
	Lodge & Shipley.....	Lathe	852	295 20
	F. J. Hale.....	Labor	853	25 90
	H. Judd	"	854	33 75
	Dunn, Taft & Co.....	Dry goods	855	2 01
	McCallip F. & W. Wks.	Wire screen	856	6 40
	E. H. Bailey.....	Labor	857	13 35
	E. G. Bailey.....	"	858	4 88
	Heller & Co.....	Steel boxes	859	3 10
	Lunkenheimer Co.....	Valves	860	24 60
	S. Smith	Blacking and brushes	861	3 10
	E. G. Willyoung & Co.	Sci. instruments	862	13 19
	Peacock & King.....	Paper	863	7 25
	R. W. Bock	Lettering	864	2 00
	W. F. Lavery.....	Labor repairing	865	33 75
	J. H. McClintock.....	Labor	866	30 00
	T. J. O'Neil.....	Mattress	867	23 55
	M. J. Bergin Lumb. Co.	Lumber	868	8 98
	Lynas Bros	Jars	869	1 12
	W. F. Mann & Co....	Grinding	870	1 00
	H. B. Brown & Sons..	Printing	871	3 75
	A. E. Loeb.....	Labor	872	6 95
	M. Staley	"	873	1 06
	W. E. Case	"	874	39 75
	Geo. Trowbridge	Carpentry	875	34 74
	C. H. Woodruff.....	" and material	876	97 25
	J. T. Frankenberg.....	Labor	877	10 95
	H. R. Powell.....	Clerical work	878	11 20
	Fkl. Toilet Sup. Co....	Laundry	879	30 16
	A. D. Morely.....	Carpentry	880	28 25
	H. M. Andress.....	Labor	881	1 68
	W. Erdman	"	882	9 98
	S. T. Hallsman.....	Painting	883	22 50
	J. H. Randall.....	Carpentry	884	73 76
	H. Butenschoen	Lettering	885	9 25
	R. J. Seymour.....	Labor	886	15 27
	K. Nurian	Salary "September, 1898....	887	7 50
	H. Gamper	"	888	7 50
	Engelke & Bigelow....	Freight and drayage	889	63 12

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Oct. 8	J. L. Trauger.....	Binding	890	2 25
	Col. Supply Co.....	Hdwe supplies	891	163 87
	Krauss, Butler & B. Co	Matting and shades	892	56 60
	C. Vogt	Papering and painting	893	38 51
	Yardley & Harsh.....	Office supplies	894	5 57
	H. Braun Sons & Co..	Oils	895	16 57
	Tallmadge Hdw Co...	Hdwe	896	100 83
	D. C. Beggs Co.....	Shades and linoleum	897	134 61
	McAllister, M. & Co..	Furniture	898	106 15
	Cap. City Mch. Wks...	Hdwe	899	71 94
	Kelton & Converse...	Lumber	900	82 12
	McClelland & Co.....	Stationery	901	28 75
	Blackw'd, Green & Co.	Hdwe	902	17 34
	Nitschke Bros	Printing	903	37 78
	J. A. Erner & Co.....	Elec. supplies	904	15 68
	Z. L. White & Co.....	Mdse	905	3 46
	A. H. Smythe.....	Stationery	906	2 50
	Hann & Adair.....	Printing	907	90 72
	Payne & McD. Hw. Co.	Hdwe	908	105 23
	Schoedinger, F. & Co..	"	909	6 43
	J. M. & W. Westwater.	Elect. fixtures	910	12 00
	Elliott & Maclean....	Lumber	911	42 99
	Cent. Ohio Paper Co..	Paper	912	10 60
	Col. Pt. Mfg. Co.....	Paint	913	27 50
	Col. Rubber & B. Co..	Belting and waste	914	45 94
	A. W. Livingston's Sns	Seeds	915	10 18
	Champlin Ptg. Co.....	Printing	916	133 80
	C. W. Harper.....	Illustrating cuts	917	4 25
	Col. Gas Co.....	Gas	918	54 30
	F. C. Caldwell.....	Salary sup. plant and cash adv	919	151 27
	Bausch & Lamb.....	Microscopes	920	185 72
	J. T. Martin.....	½ salary June, 1898.....	921	20 00
	F. W. Prentiss.....	B-E. Mayer & Muller....	922	550 32
13	R. M. Rownd, P. M...	Stamps	923	4 00
	Col. St. Ry. Co.....	St. car tickets	924	5 00
	Col. Water Works....	Water 6 months end. Nov. 1, 1898	925	607 46
17	Mrs. M. J. Kellenberger	Services as maid	926	4 00
	O. L. Vandament.....	Labor	927	2 09
	J. Mergler	"	928	1 25
	Lily Weeks	Salary Oct. 10-17	929	5 00
20	Mrs. M. J. Kellenberger	" 11-18	930	4 00
25	Lily Weeks	" 17-24	931	5 00
26	R. M. Rownd, P. M...	Postage	932	49 16
29	J. L. Roberts.....	Fees refunded	933	2 00
	C. C. Hayden.....	"	934	2 00
	M. F. Miller.....	"	935	2 00
	A. G. McCall.....	"	936	2 00
	J. H. Canfield.....	Salary Oct. 1898	937	500 00
	Alexis Cope	" "	938	187 50
	C. E. Barnett.....	" "	939	65 00
	F. W. Prentiss.....	" "	940	33 33
	Jean Blackford	" "	941	54 17
	E. D. Cockins.....	" "	942	58 33
	T. F. Hunt.....	Salary Oct. 1898, inst.....	943	250 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Oct. 29	W. F. Hunter.....	Salary Oct., 1898, inst.....	944	250 00
	G. W. Knight.....	" " " " " " " " " " " "	945	250 00
	W. A. Kellerman.....	" " " " " " " " " " " "	946	225 00
	Wm. McPherson	" " " " " " " " " " " "	947	225 00
	C. N. Brown.....	" " " " " " " " " " " "	948	225 00
	A. C. Barrows.....	" " " " " " " " " " " "	949	225 00
	E. Orton, Sr.....	" " " " " " " " " " " "	950	225 00
	E. A. Eggers.....	" " " " " " " " " " " "	951	225 00
	J. R. Smith.....	" " " " " " " " " " " "	952	225 00
	H. A. Weber.....	" " " " " " " " " " " "	953	225 00
	W. R. Lazenby.....	" " " " " " " " " " " "	954	225 00
	F. E. Sanborn.....	" " " " " " " " " " " "	955	225 00
	S. C. Derby.....	" " " " " " " " " " " "	956	225 00
	A. M. Bleile.....	" " " " " " " " " " " "	957	225 00
	A. D. Bohannon.....	" " " " " " " " " " " "	958	225 00
	W. F. Magruder.....	" " " " " " " " " " " "	959	225 00
	J. P. Gordy.....	" " " " " " " " " " " "	960	225 00
	W. H. Scott.....	" " " " " " " " " " " "	961	225 00
	B. F. Thomas.....	" " " " " " " " " " " "	962	225 00
	J. V. Denney.....	" " " " " " " " " " " "	963	225 00
	B. L. Bowen.....	" " " " " " " " " " " "	964	225 00
	H. Osborn	" " " " " " " " " " " "	965	225 00
	N. W. Lord.....	" " " " " " " " " " " "	966	200 00
	F. A. Ray.....	" " " " " " " " " " " "	967	200 00
	G. B. Kauffman.....	" " " " " " " " " " " "	968	200 00
	E. Orton, Jr.....	" " " " " " " " " " " "	969	180 00
	J. N. Bradford.....	" " " " " " " " " " " "	970	180 00
	G. W. McCoard.....	" " " " " " " " " " " "	971	160 00
	C. P. Linhart.....	" " " " " " " " " " " "	972	160 00
	H. C. Lord.....	" " " " " " " " " " " "	973	160 00
	E. A. Hitchcock.....	" " " " " " " " " " " "	974	150 00
	D. S. White.....	" " " " " " " " " " " "	975	150 00
	W. D. Gibbs.....	" " " " " " " " " " " "	976	140 00
	P. G. Bowman.....	" " " " " " " " " " " "	977	140 00
	F. C. Caldwell.....	" " " " " " " " " " " "	978	140 00
	F. C. Clark.....	" " " " " " " " " " " "	979	135 00
	W. H. Page.....	" " " " " " " " " " " "	980	135 00
	S. A. Norton.....	" " " " " " " " " " " "	981	120 00
	R. I. Fulton.....	" " " " " " " " " " " "	982	120 00
	W. H. Siebert.....	" " " " " " " " " " " "	983	120 00
	O. B. Jones.....	" " " " " " " " " " " "	984	120 00
	J. E. Boyd.....	" " " " " " " " " " " "	985	120 00
	E. B. Kinkead.....	" " " " " " " " " " " "	986	110 00
	J. R. Taylor.....	" " " " " " " " " " " "	987	110 00
	C. E. Sherman.....	" " " " " " " " " " " "	988	100 00
	T. E. French.....	" " " " " " " " " " " "	989	100 00
	C. W. Mesloh.....	" " " " " " " " " " " "	990	100 00
	C. L. Arnold.....	" " " " " " " " " " " "	991	100 00
	K. D. Swartzel.....	" " " " " " " " " " " "	992	100 00
	A. W. Hodgman.....	" " " " " " " " " " " "	993	100 00
	W. A. Knight.....	" " " " " " " " " " " "	994	95 00
	C. W. Weick.....	" " " " " " " " " " " "	995	95 00
	C. C. Steffel.....	" " " " " " " " " " " "	996	95 00
	J. H. Schaffner.....	" " " " " " " " " " " "	997	90 00
	C. W. Foulk.....	" " " " " " " " " " " "	998	90 00
	J. A. Bownocker.....	" " " " " " " " " " " "	999	90 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Oct. 29	C. A. Dye.....	Salary Oct., 1898, inst.....	1000	90 00
	W. L. Graves.....	" " ".....	1001	90 00
	J. S. Hine.....	" " ".....	1002	85 00
	F. L. Landacre.....	" " ".....	1003	85 00
	A. E. Vinson.....	" " ".....	1004	80 00
	E. M. Van Harlingen..	" " ".....	1005	80 00
	M. P. Brush.....	" " ".....	1006	80 00
	Clark Wissler.....	" " ".....	1007	80 00
	S. M. Elliott.....	" " ".....	1008	75 00
	E. O. Randall.....	" " ".....	1009	70 00
	D. F. Pugh.....	" " ".....	1010	70 00
	E. E. Harrold.....	" " ".....	1011	70 00
	N. H. Brown.....	" " ".....	1012	70 00
	E. E. Sommermeier....	" " ".....	1013	65 00
	F. Ruhlen.....	" " ".....	1014	60 00
	T. K. Lewis.....	" " ".....	1015	60 00
	A. F. Hall.....	" " ".....	1016	60 00
	W. F. Lavery.....	" " ".....	1017	60 00
	C. B. Fredericks.....	" " ".....	1018	60 00
	H. Townshend.....	" " ".....	1019	55 00
	J. F. Cunningham.....	" " ".....	1020	54 00
	G. D. Kellicott.....	" " ".....	1021	50 00
	M. D. Jeffrey.....	" " ".....	1022	50 00
	A. V. Bleininger.....	" " ".....	1023	40 00
	Lucy Allen.....	" " ".....	1024	40 00
	M. Dresbach.....	" " ".....	1025	30 00
	F. A. Fish.....	" " ".....	1026	30 00
	A. H. McIntire.....	" " ".....	1027	30 00
	E. L. Ball.....	" " ".....	1028	30 00
	S. E. Rasor.....	" " ".....	1029	30 00
	H. Judd.....	" " ".....	1030	30 00
	F. J. Hale.....	" " ".....	1031	30 00
	J. B. Parker.....	" " ".....	1032	30 00
	B. J. Maag.....	" " ".....	1033	30 00
	J. H. Voskuehler.....	" " ".....	1034	30 00
	E. L. Fullmer.....	" " ".....	1035	25 00
	Robt. Fischer.....	" " ".....	1036	25 00
	F. O. Clements.....	" " ".....	1037	25 00
	O. V. Brumley.....	" " ".....	1038	20 00
	R. C. Purdy.....	" " ".....	1039	20 00
	G. K. Rightmire.....	" " ".....	1040	20 00
	E. H. Bailey.....	" " ".....	1041	15 00
	F. F. D. Albery.....	" " ".....	1042	15 00
	J. H. Colins.....	" " ".....	1043	10 00
	D. A. Kohr.....	" " ".....	1044	10 00
	R. E. McIntosh.....	" " ".....	1045	10 00
	H. Gamper.....	" " ".....	1046	7 50
	W. C. McCracken.....	Salary Oct., 1898.....	1047	150 00
	Geo. Rose.....	" " ".....	1048	65 00
	Chas. Low.....	" " ".....	1049	54 17
	W. Stanley.....	" " ".....	1050	50 00
	Benj. LeBay.....	" " ".....	1051	50 00
	Thos. Boude.....	" " ".....	1052	45 00
	W. H. Case.....	" " ".....	1053	45 00
	H. Martz.....	" " ".....	1054	45 00
	M. Peck.....	" " ".....	1055	40 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Oct. 29	F. K. Luke.....	Salary Oct., 1898.....	1056	32 00
	A. Chantler	" "	1057	40 00
	J. F. Longman.....	" "	1058	40 00
	J. H. Brown.....	" "	1059	40 00
	D. D. Geren.....	" "	1060	40 00
	W. Whitestine	" "	1061	40 00
	H. Chantler	" "	1062	40 00
	Geo. Denney	" "	1063	40 00
	M. H. Cook.....	" "	1064	40 00
	T. S. Edgington.....	" "	1065	40 00
	T. E. Osborn.....	" "	1066	40 00
	Jas. Kelly	" "	1067	35 00
	D. C. Huddleson.....	" "	1068	50 00
	W. C. Mills.....	" "	1069	25 00
	Mrs. E. R. Hubler....	" "	1070	20 00
	Wash. Townsell	" "	1071	25 00
	W. C. Weir.....	" "	1072	20 00
	J. C. Perry.....	" "	1073	12 50
	G. W. Elwell.....	" "	1074	40 00
	A. G. McCall.....	" "	1075	16 00
	H. H. Loomis.....	Fees refunded	1076	2 00
	Joe Garretson	Salary Oct. 1, 29, 1898....	1077	39 00
	K. Nurian	" 1898.....	1078	11 25
	Lily Weeks	" 24, 31.....	1079	5 00
Nov. 31	Kuhn Art Stone Co....	Est. on cem. work	1080	700 00
1	Mrs. M. J. Kellerman.	Services dept. dom. sci....	1081	8 00
2	F. J. Pavlicek.....	Guide and mess. service....	1082	8 00
3	V. Martz	" "	1083	2 75
	J. F. Travis.....	" "	1084	7 87
	F. C. McKinney.....	" "	1085	6 62
	M. Snow	" "	1086	7 37
	F. R. West.....	" "	1087	1 75
	Cent. Ohio Oil Co....	Oil	1088	9 27
	Alexis Cope	Exp. in Page will case	1089	2 35
	Press Post Ptg. Co....	Advertising	1090	1 50
	W. S. Orvis.....	Mimeograph ink	1091	90
	Cent. Ohio Paper Co..	Paper	1092	2 00
	Tracy Wells Co....	Sundry notions	1093	5 00
	Monypeny Ham'nd Co.	Mdse	1094	4 00
	Webb. Sta. & Ptg. Co..	Office supplies	1095	4 25
	Jas. Schofield	Paint	1096	5 00
	H. W. Johns Mfg. Co.	Pipe covering	1097	11 00
	J. M. & W. Westwater.	Lights	1098	1 20
	W. F. Brown.....	Steam traps	1099	33 00
	D'Esté & Seeley Co..	Valve and regulator.....	1100	2 80
	McAllister, M. & Co..	Rattan couch	1101	7 50
	P. Beck	Hdwe	1102	10 96
	Vogelgesang Furn. Co.	Furnaces	1103	248 46
	Schiff, Jordan & Co..	Carbons	1104	26 25
	Elec. Appliance Co....	Elect. supplies	1105	13 25
	Lewis Fink	Papering	1106	63 75
	Jeffrey Mfg. Co.....	Hardware	1107	25 35
	J. S. Abbott & Co....	Glass	1108	3 40
	R. E. McIntosh.....	Labor	1109	4 16
	D. K. Starbuck.....	"	1110	5 06
	M. L. Blose.....	"	1111	4 10

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 5	J. Hertner	Labor	1112	6 88
	M. C. Hunter.....	"	1113	11 03
	J. W. Green.....	"	1114	1 56
	J. Stainbrook	"	1115	3 75
	C. Pixler.....	"	1116	11 70
	Col. Brass Co.....	Plumbers' supplies	1117	24 00
	Agricultural Student ..	Advertising	1118	20 00
	L. T. Williams.....	Work in library	1119	18 00
	H. B. Farnham.....	"	1120	3 30
	Lucy Allen	Lettering	1121	3 00
	B. Herman	Work in library	1122	7 40
	E. S. Werner.....	Books	1123	15 35
	Boston Book Co.....	"	1124	90 00
	Concilio Bibliographico	Division cards	1125	14 97
	C. A. Curtis.....	Expansive classification ..	1126	5 00
	Burrows Bros. Bk. Co.	Books	1127	72 16
	University Café	Dinners for trustees	1128	2 75
	E. W. Nettleton.....	Labor	1129	3 00
	Roy Rexroth	"	1130	3 00
	J. C. Mergler.....	"	1131	4 50
	R. Fitts	"	1132	4 72
	J. D. Uncapher.....	"	1133	3 03
	T. W. Brinker.....	"	1134	1 25
	Lewis Meiche	"	1135	6 94
	H. S. Belden.....	"	1136	5 44
	A. E. Day.....	"	1137	5 50
	A. H. Snyder.....	"	1138	2 50
	F. E. Hamilton.....	"	1139	3 69
	W. H. Gilmore.....	"	1140	4 94
	W. W. Trowbridge...	"	1141	2 13
	R. M. Ruhlen.....	"	1142	1 13
	O. L. Vanlament.....	"	1143	7 88
	W. K. Breckenridge...	"	1144	5 94
	J. S. Jones.....	"	1145	2 06
	Edw. Shaw	"	1146	2 50
	F. C. Long.....	"	1147	3 13
	E. C. Cotton.....	"	1148	2 44
	J. C. Perry.....	"	1149	2 50
	W. Atherton	"	1150	2 63
	W. W. Gregory.....	"	1151	1 19
	J. W. Brookens.....	"	1152	4 75
	J. R. Greenlee.....	"	1153	3 56
	A. D. Dickinson Co...	Seed	1154	25 25
	E. C. Kissinger.....	Cement	1155	1 25
	O. E. Jennings.....	Labor	1156	2 00
	R. A. McClure.....	Lumber	1157	9 52
	A. F. Wilcox.....	Labor	1158	32 40
	I. L. Eno.....	"	1159	2 50
	Kauffman Lattimer Co.	Apparatus and for lab. sup..	1160	1,370 65
	F. W. Prentiss.....	B-E. for ac. Max Koehler & M.....	1161	369 81
	Cent. Ohio Paper Co..	Paper	1162	4 20
	F. W. Prentiss.....	B-E. ac. Carl Schleicher & S	1163	150 08
	Baker & Co.....	Crucibles	1164	11 20
	J. Carbutt	Photo Plates	1165	12 48

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 5	Kimball & Matthews..	Photo Plates.....	1166	47 45
	Green, Joyce & Co....	Towels	1167	22 50
	Seeds & Mills.....	Feed	1168	103 50
	Schreiber & Sons.....	Lantern slides.....	1169	1 00
	Saunders & Esswein...	Coat hooks	1170	11 25
	E. C. Livenspire.....	Smithing	1171	8 25
	Kemp & Burpee.....	Repairs	1172	1 25
	F. S. Johnston.....	Clerical work	1173	13 95
	J. F. Cunningham.....	Postage	1174	2 00
	Spahr & Glenn.....	Stationery	1175	2 75
	J. R. Cain.....	Labor	1176	1 38
	W. H. Peters.....	" and lumber	1177	2 50
	F. M. Bownocker.....	"	1178	4 19
	R. J. Palmer.....	"	1179	5 31
	K. Nuriat	"	1180	2 00
	C. T. Pfaff & Co.....	Glassware	1181	1 15
	Cambridge Bot. Sp. Co.	Labels	1182	1 04
	Hayden v'le M. & M. Co	Clay	1183	3 00
	Baker Mfg. Co.....	Machine parts	1184	22 50
	Jno. McAllister	Labor	1185	19 50
	Hager & Graves.....	Groceries	1186	63
	Prosch Mfg. Co.....	Repairs	1187	5 00
	M. Staley	Labor	1188	8 07
	F. C. Caldwell.....	Cash for book-case	1189	7 00
	C. E. Lee.....	Labor	1190	1 38
	S. T. Hallsman.....	Painting	1191	21 00
	Krauss, Butler & B. Co.	Laboratory fixtures	1192	7 20
	F. B. Potts.....	Labor	1193	1 50
	Pancoast Vent. Co....	Ventilators	1194	4 00
	Stitt, Price & Co....	Cement	1195	14 50
	McClelland & Co.....	Blackboard	1196	17 20
	A. D. Morely.....	Carpentry	1197	4 50
	Norton Emery Whl. Co	Emery wheels	1198	4 14
	Nicholson File Co....	File cards	1199	45 89
	Jones & Laughlin.....	Iron	1200	5 26
	Morse Tw't D. & M. Co	Wrench	1201	2 85
	E. B. Schulte Sons Co.	Iron and steel.....	1202	50 68
	Col. Bolt Works.....	Bolts	1203	8 71
	S. C. Derby.....	Cash adv. for books.....	1204	5 85
	Gowing & Co.....	Calorimeters	1205	32 00
	Crescent Steel Co....	Steel	1206	2 34
	L. S. Starrett & Co....	Cutter	1207	2 48
	A. F. Hall.....	Cash adv. for sundries	1208	55
	M. P. Streett.....	Masonry	1209	5 00
	Hoggson & P. Mfg. Co.	Steel stamps	1210	72
	W. H. Miller Co.....	Glass and hdwe	1211	33 94
	Simons Hdw. Co.....	"	1212	1 33
	Geo. Trowbridge	Carpentry	1213	25
	E. H. Bailey.....	Labor	1214	4 05
	F. J. Hale.....	Clerical work	1215	3 00
	H. Judd	Carpentry	1216	7 88
	Holmes F. Grap. M. Co	Hangers	1217	18 29
	W. B. Calkins.....	Labor	1218	13 50
	Kny Sheerer Co.....	Scientific instruments	1219	80 35
	S. L. Huddleson.....	Running track	1220	130 00
	C. P. Linhart.....	Blacksmithing	1221	2 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 5	J. & G. Butler.....	Soap	1222	8 00
	A. G. Spalding & Bros.	Gym. equipment.....	1223	869 80
	Bancroft & Bros.	Elect. instruments.....	1224	7 00
	Western Elec. Co.....	"	1225	88 70
	Thomas Law Book Co.	Labels	1226	6 25
	H. J. Hammond.....	Hosp. supplies	1227	2 81
	W. Sparhawk	Laundry	1228	53
	Sparhawk & Worcester	Care of horse	1229	25 00
	D. C. Beggs.....	Shades	1230	6 25
	Ohio Furn. Co.....	Boxes	1231	45 00
	R. C. Osburn.....	Collecting	1232	3 60
	A. H. Smythe.....	Paper	1233	1 50
	Brehmne & Stengele..	Cork	1234	12 00
	W. T. Falconer Mf. Co	Apiarian supplies	1235	3 00
	H. L. Osborn.....	Books	1236	16 93
	Cherington P. & E. Co.	Self-inker	1237	1 25
	Ward's Nat. Sci. Est..	Mounting	1238	140 00
	Murray City Coal Co.	Coal	1239	661 74
	Engelke & Bigelow....	Freight and drayage	1240	73 00
	C. Woodruff	Carpentry and climb. flag pole	1241	65 00
	Wilbert Morlan	Carpentry	1242	5 40
	H. C. Nidy.....	Labor	1243	5 19
	R. J. Seymour.....	"	1244	8 75
	B. B. Wells.....	"	1245	4 80
	E. G. Bailey.....	"	1246	5 00
	W. Erdmann	"	1247	15 98
	Mrs. E. R. Hubler....	Clerical work	1248	14 17
	Franklin Toil. Sup. Co.	Laundry	1249	17 97
	J. H. Randall.....	Carpentry	1250	38 75
	J. H. Nold.....	Labor	1251	8 80
	Elliott & Maclean....	Molding, etc.....	1252	10 83
	Blackwood, G. & Co.	Hardware	1253	37 34
	Col. Supply Co.....	" supplies	1254	43 47
	Col. Rubber & B. Co.	Hose and coupling.....	1255	82 28
	Kelton & Converse....	Lumber	1256	159 40
	Champlin Ptg. Co.....	Printing	1257	109 60
	Tallmadge Hdw. Co....	Hdwe	1258	45 35
	Standard Oil Co.....	Oil	1259	30 25
	Library Bureau	Library supplies	1260	20 19
	Nüschke Bros	Stationery	1261	14 35
	G. L. Stechert	Books	1262	112 43
	J. A. Erner & Co.....	Elect. supplies	1263	6 64
	R. W. Bock.....	Sign painting	1264	15 00
	B. D. Potts.....	Hose and pipes	1265	5 22
	New Col. Bdg. Co....	Iron	1266	24 00
	Col. Gas Co.....	Coke	1267	19 25
	Cap. City Mch. Wks..	Hdwe	1268	4 95
	Schoedinger, F. & Co..	"	1269	11 81
	Perry Smythe	Picture frames	1270	13 95
	J. P. Carlile.....	Cement	1271	5 17
	Hann & Adair.....	Printing	1272	30 48
	H. Braun Sons & Co.	Surgical instruments	1273	56 43
	Bausch L. Opt. Co....	Microscopes	1274	345 40
	Ruggles Gale Co.....	Office supplies	1275	14 33
	G. M. Johnson.....	Refund of fees.....	1276	5 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 5	R. W. Funk.....	Work in store-room.....	1277	27 38
	Paul Jones	Postage and letter book....	1278	3 70
	Col. Gas Co.....	Gas	1279	123 97
8	C. F. Bowen.....	Refund of fees	1280	6 75
	Lily Weeks	Salary as janitrix	1281	5 00
11	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	1282	4 00
	C. F. Sigrist.....	Fees refunded	1283	4 50
12	F. W. Prentiss.....	Payment bonds and int....	1284	28,375 00
	G. Bruder	Salary band master	1285	42 00
17	F. W. Prentiss.....	B-E. ac. C Kob & Co.....	1286	807 79
22	Lily Weeks	Salary to Nov. 21, 1898....	1287	10 00
	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	1288	8 00
26	J. H. Canfield.....	Salary Nov., 1898	1289	500 00
	Alexis Cope	" "	1290	187 50
	C. E. Barnett.....	" "	1291	65 00
	F. W. Prentiss.....	" "	1292	33 33
	Jean Blackford	" "	1293	54 17
	E. D. Cockins.....	" "	1294	58 33
	T. F. Hunt.....	Salary Nov., 1898, inst....	1295	250 00
	W. F. Hunter.....	" "	1296	250 00
	G. W. Knight.....	" "	1297	250 00
	W. A. Kellerman.....	" "	1298	225 00
	Wm. McPherson	" "	1299	225 00
	C. N. Brown.....	" "	1300	225 00
	A. C. Barrows.....	" "	1301	225 00
	Edw. Orton.....	" "	1302	225 00
	E. A. Eggers.....	" "	1303	225 00
	J. R. Smith.....	" "	1304	225 00
	H. A. Weber.....	" "	1305	225 00
	W. R. Lazenby.....	" "	1306	225 00
	F. E. Sanborn.....	" "	1307	225 00
	S. C. Derby.....	" "	1308	225 00
	A. M. Bleile.....	" "	1309	225 00
	R. D. Bohannan.....	" "	1310	225 00
	W. T. Magruder.....	" "	1311	225 00
	J. P. Gordy.....	" "	1312	225 00
	W. H. Scott.....	" "	1313	225 00
	B. F. Thomas.....	" "	1314	225 00
	J. V. Denney.....	" "	1315	225 00
	B. L. Bowen.....	" "	1316	225 00
	H. Osborn	" "	1317	225 00
	N. W. Lord.....	" "	1318	200 00
	F. A. Ray.....	" "	1319	200 00
	G. B. Kauffman.....	" "	1320	200 00
	Edw. Orton, Jr.....	" "	1321	180 00
	J. N. Bradford.....	" "	1322	180 00
	G. W. McCoard.....	" "	1323	160 00
	C. P. Linhart.....	" "	1324	160 00
	H. C. Lord.....	" "	1325	160 00
	E. A. Hitchcock.....	" "	1326	150 00
	D. S. White.....	" "	1327	150 00
	W. D. Gibbs.....	" "	1328	140 00
	P. G. Bowman.....	" "	1329	140 00
	F. C. Caldwell.....	" "	1330	140 00
	F. C. Clark.....	" "	1331	135 00
	W. H. Page.....	" "	1332	135 00

STATEMENT II -- Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 26	S. A. Norton.....	Salary Nov., 1898, inst	1333	120 00
	R. I. Fulton.....	" "	1334	120 00
	W. H. Siebert.....	" "	1335	120 00
	O. B. Jones.....	" "	1336	120 00
	J. E. Boyd.....	" "	1337	120 00
	E. B. Kinkead.....	" "	1338	110 00
	J. R. Taylor.....	" "	1339	110 00
	C. E. Sherman.....	" "	1340	100 00
	T. E. French.....	" "	1341	100 00
	C. W. Mesloh.....	" "	1342	100 00
	C. L. Arnold.....	" "	1343	100 00
	K. D. Swartzel.....	" "	1344	100 00
	A. W. Hodgman.....	" "	1345	100 00
	W. A. Knight.....	" "	1346	95 00
	C. W. Weick.....	" "	1347	95 00
	C. C. Sleffel.....	" "	1348	95 00
	J. H. Schaffner.....	" "	1349	90 00
	C. W. Foulk.....	" "	1350	90 00
	J. A. Bownocker.....	" "	1351	90 00
	C. A. Dye.....	" "	1352	90 00
	W. L. Graves.....	" "	1353	90 00
	J. S. Hine.....	" "	1354	85 00
	F. L. Landacre.....	" "	1355	85 00
	A. E. Vinson.....	" "	1356	80 00
	E. M. Van Harlingen..	" "	1357	80 00
	M. P. Brush.....	" "	1358	80 00
	C. Wissler.....	" "	1359	80 00
	S. M. Elliott.....	" "	1360	75 00
	E. O. Randall.....	" "	1361	70 00
	D. F. Pugh.....	" "	1362	70 00
	E. E. Harrold.....	" "	1363	70 00
	N. H. Brown.....	" "	1364	70 00
	E. E. Somermier.....	" "	1365	65 00
	F. H. Ruhlen.....	" "	1366	60 00
	T. K. Lewis.....	" "	1367	60 00
	A. F. Hall.....	" "	1368	60 00
	W. F. Lavery.....	" "	1369	60 00
	C. B. Frederick.....	" "	1370	60 00
	H. Townshend.....	" "	1371	55 00
	J. F. Cunningham.....	" "	1372	54 00
	G. S. Kellicott.....	" "	1373	50 00
	M. D. Jeffrey.....	" "	1374	50 00
	A. V. Bleininger.....	" "	1375	40 00
	Lucy Allen.....	" "	1376	40 00
	M. Dresbach.....	" "	1377	30 00
	F. A. Fish.....	" "	1378	30 00
	A. H. McIntire.....	" "	1379	30 00
	E. L. Ball.....	" "	1380	30 00
	S. E. Rasor.....	" "	1381	30 00
	H. Judd.....	" "	1382	30 00
	F. J. Hale.....	" "	1383	30 00
	J. B. Parker.....	" "	1384	30 00
	B. F. Maag.....	" "	1385	30 00
	J. H. Vosskuehler.....	" "	1386	30 00
	E. L. Fullmer.....	" "	1387	25 00
	R. Fischer.....	" "	1388	25 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 26	F. O. Clements.....	Salary Nov., 1898, inst	1389	25 00
	O. V. Brumley.....	" "	1390	20 00
	R. C. Purdy.....	" "	1391	20 00
	G. W. Rightmire.....	" "	1392	20 00
	E. H. Bailey.....	" "	1393	15 00
	F. F. D. Albery.....	" "	1394	15 00
	J. H. Collins.....	" "	1395	10 00
	D. A. Kohr.....	" "	1396	10 00
	R. E. McIntosh.....	" "	1397	10 00
	H. Gamper.....	" "	1398	7 50
	W. C. McCracken.....	" "	1399	150 00
	Geo. Rose.....	" "	1400	65 00
	C. Low.....	" "	1401	54 17
	W. Standley.....	" "	1402	50 00
	B. Lebay.....	" "	1403	50 00
	Thos. Boude.....	" "	1404	45 00
	W. H. Case.....	" "	1405	45 00
	H. Martz.....	" "	1406	45 00
	M. Peck.....	" "	1407	40 00
	F. K. Luke.....	" "	1408	40 00
	A. Chantler.....	" "	1409	40 00
	J. F. Longman.....	" "	1410	40 00
	J. H. Brown.....	" "	1411	40 00
	D. D. Geren.....	" "	1412	40 00
	W. Whitestone.....	" "	1413	40 00
	H. Chantler.....	" "	1414	40 00
	Geo. Denney.....	" "	1415	40 00
	M. N. Cook.....	" "	1416	40 00
	T. L. Edgington.....	" "	1417	40 00
	T. E. Osborn.....	" "	1418	40 00
	Jas. Kelley.....	" "	1419	35 00
	D. C. Huddleson.....	" "	1420	50 00
	W. C. Mills.....	" "	1421	25 00
	Mrs. E. R. Hubler.....	" "	1422	20 00
	Wash. Townsend.....	" "	1423	25 00
	W. C. Weir.....	" "	1424	20 00
	J. C. Perry.....	" "	1425	12 50
	G. W. Elwell.....	" "	1426	40 00
	A. G. McCall.....	" "	1427	20 00
25	M. W. Sherwood.....	Refund of fees, soldier.....	1428	9 00
26	Joe Garretson.....	Plumbers' helper	1429	37 50
28	W. S. Haly.....	Refund of fees.....	1430	5 00
	C. H. Evans.....	" " soldier	1431	12 00
Dec. 1	F. W. Prentiss.....	Paymt of int. bonds.....	1432	5,700 00
	A. A. H. Grimm.....	Refund of fees, soldier.....	1433	5 00
3	Kate Shanaham.....	Inst. in laundrying.....	1434	26 00
6	Lily Weeks.....	Salary as janitrix.....	1435	8 00
	L. B. Wing.....	Expenses meet'g trustees.....	1436	9 55
7	M. J. Kellenberger.....	Serv| dept. dom. sci.....	1437	8 00
10	Col. Gas Co.....	Gas	1438	139 12
	F. R. West.....	Guide and mess. serv.....	1439	2 00
	M. Snow.....	" "	1440	5 12
	J. F. Travis.....	" "	1441	1 75
	F. C. McKinney.....	" "	1442	4 75
	V. Martz.....	" "	1443	3 75
	R. J. Seymour.....	" "	1444	5 87

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Nov. 26	F. J. Pavlicek.....	Guide and mess. serv.....	1445	4 12
	Tracy Wells Co.....	Mops	1446	15 60
	Cherington P. & E. Co.	Rubber stamp	1447	50
	Cent. O. Oil Co.....	Oil	1448	12 60
	Buckeye H. & L. Co...	Leather	1449	35
	Webb. Sta. & Ptg. Co.	Stationery	1450	18 00
	Hanna Paint Mfg. Co.	Paint	1451	1 50
	Lawrence Press Co...	Vouchers	1452	1 50
	Mrs. E. R. Hubler....	Clerical work.....	1453	7 82
	Ideal Pub. Co.....	Half-tone cut	1454	1 50
	West. U. Tel. Co.....	Telegraph service	1455	63
	A. McLaughlin.....	Work in record office	1456	1 28
	Mrs. F. D. Meyer.....	Laundry	1457	3 00
	E. R. Calloway.....	Cleaning vaults	1458	67 53
	Burgess Sold. Fur. Co.	Repairs	1459	1 95
	Bourne & K. Mfg. Co.	Gaskets	1460	2 78
	Sherwood Mfg. Co....	Cutters	1461	2 00
	Col. Brass Co.....	Labor and material	1462	2 40
	Shawmut F. Wire Co.	Fuses	1463	61
	J. J. Gheen.....	Plastering	1464	15 85
	Waters Governor Co..	Reducing valve	1465	140 00
	Jewell Belting Co....	Sundries	1466	13 03
	Kilbourne Jones Co..	Bolts	1467	45
	Pneumatic Eng. Co....	Pump	1468	250 00
	West Steam Eng. Co..	Packing	1469	35 00
	Eaton Mch. Wks.....	Labor and material	1470	10 50
	West'ghouse E. Mf. Co.	Apparatus	1471	186 17
	M. P. Streett.....	Building chimney	1472	11 65
	M. L. Blöse.....	Labor	1473	5 88
	R. E. McIntosh.....	"	1474	6 91
	F. A. Fish.....	"	1475	3 00
	H. C. Nidy.....	"	1476	5 55
	C. R. Stauffer.....	"	1474	1 60
	J. T. Frankenberg.....	"	1478	3 28
	M. C. Hunter.....	"	1479	10 40
	M. Stanley	"	1480	6 75
	C. Pixler	" clean boilers.....	1481	41 25
	Jas. Stainbrook	"	1482	40 50
	J. LeBay	Digging trench	1483	6 75
	Jeffrey Hdw. Co.....	Sprocket and chain	1484	29 35
	General Elec. Co.....	Elect. supplies	1485	6 25
	The Lantern	Advertising	1486	60 00
	Y. M. C. A.....	"	1487	5 50
	Boston Book Co.....	Books	1488	132 80
	Seraphim B. Book Co.	Binding	1489	55 65
	Ginn & Co.....	Books	1490	2 25
	Torrey Bot. Club.....	Bulletin	1491	20
	Am. Jo. of Physiology	Books	1492	5 00
	I. N. Demmon.....	"	1493	30 00
	Am. Trot. Reg. Assn..	"	1494	3 00
	Good Housekeeping ..	Magazine	1495	27
	E. A. Werner.....	Books	1496	5 00
	Univ. of Chic. Press..	Magazine	1497	40
	Writer Pub. Co.....	"	1498	2 00
	Cambridge Ent. Club..	"	1499	2 00
	Helman Taylor Co....	Books	1500	27 10

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Dec. 10	G. E. Steckert.....	Books.....	1501	86 54
	Burrows Bros. Co.....	".....	1502	223 12
	O. S. Lear.....	Typewriter.....	1503	75 00
	Yawman & E. Mfg. Co.	Library supplies.....	1504	5 18
	Boston Bk. Binding Co.	Binders.....	1505	2 00
	Agr. Stud. Pub. Co....	Adv.....	1506	10 00
	L. T. Williams.....	Work in library.....	1507	10 00
	B. Hermann.....	".....	1508	2 10
	H. B. Farnham.....	".....	1509	2 00
	Fritch Mfg. Co.....	Iron work.....	1510	17 50
	H. Haerlein.....	Landscape gardening.....	1511	66 10
	Col. Macadam Co.....	Stone screenings.....	1512	208 73
	L. Meiche.....	Labor.....	1513	1 75
	W. Atherton.....	".....	1514	1 87
	J. Mergler.....	".....	1515	1 00
	J. B. Crabb.....	".....	1516	2 00
	W. K. Breckenridge....	".....	1517	5 13
	H. L. Belden.....	".....	1518	5 37
	W. H. Gilmore.....	".....	1519	1 44
	O. L. Vandament.....	".....	1520	2 25
	J. D. Uncapher.....	".....	1521	1 87
	A. F. Wilcox.....	".....	1522	13 43
	J. A. Brookens.....	".....	1523	4 75
	T. McOwen.....	".....	1524	1 75
	C. Mooney.....	".....	1525	1 80
	O. E. Jennings.....	".....	1526	2 31
	A. H. Snyder.....	".....	1527	1 94
	J. Keller.....	Gravel.....	1528	339 52
	Eastman Kodak Co....	Photo plates.....	1529	11 20
	Kauffman Lattimer Co.	Apparatus and chemicals...	1530	239 85
	Baker & A. Chem. Co..	Chemicals.....	1531	12 60
	Creamery Pkg. Co.....	Pulp caps.....	1532	5 00
	W. Burdell, Jr.....	Harness.....	1533	1 75
	B. W. Herman.....	Freight.....	1534	4 40
	Stitt, Price & Co.....	Lime.....	1535	1 68
	Cyclone W. Wire F. Co	Fence.....	1536	67 81
	H. P. Miller.....	Sheep and lectures.....	1537	20 00
	Seeds & Mills.....	Oil meal.....	1538	2 80
	Mrs. C. H. Woodruff..	Lodging hands.....	1539	5 25
	Press Post Ptg. Co....	Advertising.....	1540	1 79
	Col. Dispatch.....	".....	1541	2 70
	O. S. Journal Co.....	".....	1542	2 52
	J. Immel & Son.....	Repairing.....	1543	9 20
	J. Weisheimer.....	Grinding.....	1544	8 85
	C. M. Cott.....	Milk tickets.....	1545	4 50
	H. A. Blakester.....	".....	1546	15 00
	E. C. Livenspire.....	Blacksmithing.....	1547	9 95
	G. W. Clarke & Co....	Lumber.....	1548	59 16
	M. J. Bergin Lbr. Co..	".....	1549	17 64
	Coe & Spencer.....	".....	1550	3 20
	F. S. Johnston.....	Clerical work.....	1551	13 80
	Kny Sheerer Co.....	Model of eye.....	1552	19 00
	Richards & Co.....	Chemicals.....	1553	3 55
	E. C. Duke.....	Clearing field.....	1554	1 77
	M. G. Modie.....	Wire.....	1555	3 07
	Bausch L. Opt. Co....	Balsam.....	1556	86

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Dec. 10	L. C. Riddle.....	Mounting plants	1557	9 00
	M. Peck	Specimens	1558	8 00
	Bradstreets Co	Journal	1559	182 00
	Jas. Penn	Freight and drayage	1560	1 37
	Payne McD. Hdw. Co.	Hardware	1561	1 25
	J. M. Blair	Packing and draying	1562	2 50
	Moonstone Cpy. Sl. Co.	Ink and filling	1563	1 95
	Mayer Pottery Co.....	Pottery supplies	1564	3 00
	Col. Brass Co.....	Boiler and motor	1565	30 25
	Alpheia Dairy Co.....	Milk tickets	1566	2 00
	Z. L. White & Co....	Dry goods	1567	14 00
	F. C. Clark.....	Office supplies	1568	2 65
	H. Geren	"	1569	1 15
	Macmillan Co	Book	1570	75
	J. Hertner	Labor	1571	7 35
	McClelland & Co.....	Books	1572	27 60
	Hammond & Sparh'k.	Care of horse	1573	10 25
	H. Troemner	Scales	1574	88 98
	E. A. Kinsey Co.....	Steel	1575	3 26
	Morse T. Drill & M. Co	Taps	1576	3 01
	Hager & Graves.....	Molasses	1577	60
	P. Hayden S. Hdw. Co	Copper	1578	5 22
	Hayden v'le M. & M. Co	Coke	1579	11 36
	B. B. Wells.....	Labor	1580	12 00
	K. Nurian	"	1581	7 05
	J. H. Nold.....	"	1582	7 95
	G. M. Berndroth.....	"	1583	3 45
	H. Gamper	"	1584	4 28
	E. Thompson Co.....	Encyclopædia of law	1585	6 00
	Ohio Furn. Co.....	Book-case	1586	16 00
	J. M. Hayden & Co....	Lacing	1587	3 30
	L. S. Starrett Co.....	Tools	1588	9 25
	Armstrong Brs. T. Co.	"	1589	7 43
	Direct Separator Co...	Separator	1590	12 00
	J. DeRycke	"	1591	16 00
	Western Mfg Co.....	Tools	1592	2 63
	Buffalo Scale Co.....	Scale parts	1593	28 17
	Schaffer & Budenberg.	Counter	1594	16 00
	Wheeler C. & Eng. Co.	Condenser	1595	400 00
	F. J. Hale.....	Labor	1596	2 22
	G. C. Henning.....	Repairs	1597	75
	McGraw & Andrews..	Braces	1598	25
	H. Judd	Carpentry	1599	9 12
	E. H. Bailey.....	Pipe fitting	1600	10 65
	Taylor M. & G. Co....	Interior wk. and furn.....	1601	221 00
	Miller Furn. Co.....	Chairs	1602	56 50
	Baker's Art Gallery...	Frame and pictures	1603	22 40
	H. Goldsmith	Musical inst. and repairs...	1604	49 80
	R. W. Funk.....	Labor	1605	6 52
	L. S. Brown & Son....	Repairs	1606	60
	L. S. Huddleson.....	Running track	1607	18 30
	J. C. Sherwood.....	Basket ball	1608	4 50
	D. C. Beggs Co.....	Shades	1609	4 50
	Queen & Co.....	Scales	1610	12 00
	West. Elec. Co.....	Wattmeters	1611	30 00
	Col. Buggy Co.....	Painting	1612	6 50

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Dec. 10	C. Scribner's Sons....	Book	1613	1 25
	I. N. Demmon.....	"	1614	25 00
	E. Kaiser.....	Salt	1615	1 10
	M. A. Frazar.....	Netting	1616	2 10
	R. C. Osborn.....	Work in library	1617	8 85
	E. G. Bailey.....	Labor	1618	4 96
	J. A. Erner & Co.....	Elect. supplies	1619	24 65
	Blackwood, G. & Co....	Hardware	1620	35 35
	Elliott & Maclean.....	Lumber	1621	27 40
	J. H. Randall.....	Carpentry	1622	56 50
	W. Morelan.....	"	1623	12 60
	Tallmadge Hdw. Co....	Hardware	1624	22 88
	Col. Rubber & B. Co..	Pipe	1625	11 62
	Palmer & Beck.....	Roofing	1626	67 07
	Krauss, B. & B. Co....	Shades	1627	34 40
	W. H. Anderson & Co.	Books	1638	272 25
	Hann & Adair.....	Typewriter, paper, etc....	1629	114 75
	Kelton & Converse....	Lumber	1630	17 42
	J. M. & W. Westwater.	Sundries	1631	5 75
	Fkl. Toilet Sup. Co....	Laundry	1632	34 05
	Green, Joyce & Co....	Dry goods	1633	12 26
	Nitschke Bros.....	Paper and ink	1634	6 00
	Champlin Ptg. Co....	Printing, etc.....	1635	136 00
	H. Braun Sons Co....	Chemicals	1636	5 68
	B. D. Potts.....	Hardware	1637	37 39
	Library Bureau.....	Book-case and supplies ..	1638	44 80
	Schoedinger, F. & Co.	Hardware	1639	7 58
	Kimball & Matthews..	Photo supplies	1640	8 97
	T. H. McAllister.....	Stereopticon supplies ..	1641	11 03
	Standard Oil Co.....	Oil	1642	42 46
	Col. Supply Co.....	Hardware supplies	1643	27 35
	Jas. Ohlen Sons.....	Steel	1644	5 45
	Cap. City Mch. Wks..	Machine parts	1645	69 26
	W. Erdman.....	Labor	1646	10 90
	Murray City Coal Co..	Coal	1647	987 68
	C. H. Woodruff.....	Labor and material	1648	61 25
	Engelke & Bigelow....	Freight and cartage.....	1649	57 08
12	R. M. Rownd, P. M....	Stamps	1650	20 00
	Lily Weeks	Salary Dec. 5-12, 1898....	1651	5 00
14	W. I. Chamberlain....	Exp. del. L. G. Col. Ass'n..	1652	22 78
	W. I. Chamberlain....	Exp. meet'g Dec. 14, 1898..	1653	16 15
15	T. J. Godfrey.....	"	1654	27 95
16	J. McL. Smith.....	"	1655	7 95
	J. T. Mack.....	"	1656	13 85
17	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	1657	12 00
16	R. M. Rownd, P. M....	Postage	1658	21 80
	Lily Weeks	Salary Dec. 12-19	1659	5 00
17	D. S. White.....	" 1898, inst.....	1660	150 00
21	J. H. Canfield.....	"	1661	500 00
	Alexis Cope	"	1662	187 50
	C. E. Barnet.....	"	1663	65 00
	F. W. Prentiss.....	"	1664	33 33
	Jean Blackford	"	1665	54 17
	E. D. Cockins.....	"	1666	58 33
	T. F. Hunt.....	"	1667	250 00
	W. F. Hunter.....	"	1668	250 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Dec. 21	G. W. Knight.....	Salary Dec., 1898, inst.....	1669	250 00
	W. A. Kellerman.....	" " " " " " " " " " " "	1670	225 00
	W. McPherson.....	" " " " " " " " " " " "	1671	225 00
	C. N. Brown.....	" " " " " " " " " " " "	1672	225 00
	A. C. Barrows.....	" " " " " " " " " " " "	1673	225 00
	Edw. Orton.....	" " " " " " " " " " " "	1674	225 00
	E. A. Eggers.....	" " " " " " " " " " " "	1675	225 00
	J. R. Smith.....	" " " " " " " " " " " "	1676	225 00
	H. A. Weber.....	" " " " " " " " " " " "	1677	225 00
	W. R. Lazenby.....	" " " " " " " " " " " "	1678	225 00
	F. E. Sanborn.....	" " " " " " " " " " " "	1679	225 00
	S. C. Derby.....	" " " " " " " " " " " "	1680	225 00
	A. M. Bleile.....	" " " " " " " " " " " "	1681	225 00
	R. D. Bohannon.....	" " " " " " " " " " " "	1682	225 00
	W. T. Magruder.....	" " " " " " " " " " " "	1683	225 00
	J. P. Gordy.....	" " " " " " " " " " " "	1684	225 00
	W. H. Scott.....	" " " " " " " " " " " "	1685	225 00
	B. F. Thomas.....	" " " " " " " " " " " "	1686	225 00
	J. V. Denney.....	" " " " " " " " " " " "	1687	225 00
	B. L. Bowen.....	" " " " " " " " " " " "	1688	225 00
	H. Osborn.....	" " " " " " " " " " " "	1689	225 00
	N. W. Lord.....	" " " " " " " " " " " "	1690	200 00
	F. A. Ray.....	" " " " " " " " " " " "	1690	200 00
	G. B. Kauffman.....	" " " " " " " " " " " "	1692	200 00
	Edw. Orton, Jr.....	" " " " " " " " " " " "	1693	180 00
	J. N. Bradford.....	" " " " " " " " " " " "	1694	180 00
	G. W. McCoard.....	" " " " " " " " " " " "	1695	160 00
	C. P. Linhart.....	" " " " " " " " " " " "	1696	160 00
	H. C. Lord.....	" " " " " " " " " " " "	1697	160 00
	E. A. Hitchcock.....	" " " " " " " " " " " "	1698	150 00
	W. D. Gibbs.....	" " " " " " " " " " " "	1699	140 00
	P. G. Bowman.....	" " " " " " " " " " " "	1700	140 00
	F. C. Caldwell.....	" " " " " " " " " " " "	1701	140 00
	F. C. Clark.....	" " " " " " " " " " " "	1702	135 00
	W. H. Page.....	" " " " " " " " " " " "	1703	135 00
	S. A. Norton.....	" " " " " " " " " " " "	1704	120 00
	R. I. Fulton.....	" " " " " " " " " " " "	1705	120 00
	W. H. Siebert.....	" " " " " " " " " " " "	1706	120 00
	O. B. Jones.....	" " " " " " " " " " " "	1707	120 00
	J. E. Boyd.....	" " " " " " " " " " " "	1708	120 00
	E. B. Kinkad.....	" " " " " " " " " " " "	1709	110 00
	J. R. Taylor.....	" " " " " " " " " " " "	1710	110 00
	C. E. Sherman.....	" " " " " " " " " " " "	1711	100 00
	T. E. French.....	" " " " " " " " " " " "	1712	100 00
	C. W. Mesloh.....	" " " " " " " " " " " "	1713	100 00
	C. L. Arnold.....	" " " " " " " " " " " "	1714	100 00
	K. D. Swartzel.....	" " " " " " " " " " " "	1715	100 00
	A. W. Hodgman.....	" " " " " " " " " " " "	1716	100 00
	W. A. Knight.....	" " " " " " " " " " " "	1717	95 00
	C. W. Weick.....	" " " " " " " " " " " "	1718	95 00
	C. C. Sleffel.....	" " " " " " " " " " " "	1719	95 00
	J. H. Schaffner.....	" " " " " " " " " " " "	1720	90 00
	C. W. Foulk.....	" " " " " " " " " " " "	1721	90 00
	J. A. Bownocker.....	" " " " " " " " " " " "	1722	90 00
	C. A. Dye.....	" " " " " " " " " " " "	1723	90 00
	W. L. Graves.....	" " " " " " " " " " " "	1724	90 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Dec. 21	J. S. Hine.....	Salary Dec., 1898, inst.....	1725	85 00
	F. L. Landacre.....	" " " " " " " " " " " "	1726	85 00
	A. E. Vinson.....	" " " " " " " " " " " "	1727	80 00
	E. M. Van Harlingen..	" " " " " " " " " " " "	1728	80 00
	M. P. Brush.....	" " " " " " " " " " " "	1729	80 00
	C. Wissler.....	" " " " " " " " " " " "	1730	80 00
	S. M. Elliott.....	" " " " " " " " " " " "	1731	75 00
	E. O. Randall.....	" " " " " " " " " " " "	1732	70 00
	D. F. Pugh.....	" " " " " " " " " " " "	1733	70 00
	E. E. Harrold.....	" " " " " " " " " " " "	1734	70 00
	N. H. Brown.....	" " " " " " " " " " " "	1735	70 00
	E. E. Somermeier.....	" " " " " " " " " " " "	1736	65 00
	F. Ruhlen.....	" " " " " " " " " " " "	1737	60 00
	T. K. Lewis.....	" " " " " " " " " " " "	1738	60 00
	A. F. Hall.....	" " " " " " " " " " " "	1739	60 00
	W. F. Lavery.....	" " " " " " " " " " " "	1740	60 00
	C. B. Fredericks.....	" " " " " " " " " " " "	1741	60 00
	Harriet Townsend.....	" " " " " " " " " " " "	1742	55 00
	J. F. Cunningham.....	" " " " " " " " " " " "	1743	54 00
	G. S. Kellicott.....	" " " " " " " " " " " "	1744	50 00
	M. D. Jeffrey.....	" " " " " " " " " " " "	1745	50 00
	A. V. Bleininger.....	" " " " " " " " " " " "	1746	40 00
	Lucy Allen.....	" " " " " " " " " " " "	1747	40 00
	M. Dresbach.....	" " " " " " " " " " " "	1748	30 00
	F. A. Fish.....	" " " " " " " " " " " "	1749	30 00
	A. H. McIntyre.....	" " " " " " " " " " " "	1750	30 00
	E. L. Ball.....	" " " " " " " " " " " "	1751	30 00
	S. E. Rasor.....	" " " " " " " " " " " "	1752	30 00
	Horace Judd.....	" " " " " " " " " " " "	1753	30 00
	F. J. Hale.....	" " " " " " " " " " " "	1754	30 00
	J. B. Parker.....	" " " " " " " " " " " "	1755	30 00
	B. F. Maag.....	" " " " " " " " " " " "	1756	30 00
	J. H. Vosskuehler.....	" " " " " " " " " " " "	1757	30 00
	E. L. Fullmer.....	" " " " " " " " " " " "	1758	25 00
	Robt. Fischer.....	" " " " " " " " " " " "	1759	25 00
	F. O. Clements.....	" " " " " " " " " " " "	1760	25 00
	O. V. Brumley.....	" " " " " " " " " " " "	1761	20 00
	R. C. Purdy.....	" " " " " " " " " " " "	1762	20 00
	G. W. Rightmire.....	" " " " " " " " " " " "	1763	20 00
	E. H. Bailey.....	" " " " " " " " " " " "	1764	15 00
	F. F. D. Albery.....	" " " " " " " " " " " "	1765	15 00
	J. H. Collins.....	" " " " " " " " " " " "	1766	10 00
	D. A. Kohr.....	" " " " " " " " " " " "	1767	10 00
	R. E. McIntosh.....	" " " " " " " " " " " "	1768	10 00
	C. Guittard.....	" " " " " " " " " " " "	1769	50 00
	H. Gamper.....	" " " " " " " " " " " "	1770	7 50
	W. C. McCracken.....	" " " " " " " " " " " "	1771	150 00
	G. Rose.....	" " " " " " " " " " " "	1772	65 00
	Chas. Low.....	" " " " " " " " " " " "	1773	54 17
	Wm. Standley.....	" " " " " " " " " " " "	1774	50 00
	B. LeBay.....	" " " " " " " " " " " "	1775	50 00
	Thos. Boude.....	" " " " " " " " " " " "	1776	45 00
	W. H. Case.....	" " " " " " " " " " " "	1777	45 00
	H. Martz.....	" " " " " " " " " " " "	1778	45 00
	M. Peck.....	" " " " " " " " " " " "	1779	40 00
	T. K. Luke.....	" " " " " " " " " " " "	1780	40 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Dec. 21	A. Chantler.....	Salary Dec., 1898.....	1781	40 00
	J. F. Longman.....	Salary Dec. 24, 1898.....	1782	30 97
	J. H. Brown.....	Salary Dec., 1898.....	1783	40 00
	D. D. Geren.....	" ".....	1784	40 00
	W. Whitestone.....	" ".....	1785	40 00
	H. Chantler.....	" ".....	1786	40 00
	G. C. Denny.....	" ".....	1787	40 00
	M. N. Cook.....	" ".....	1788	40 00
	T. S. Edgington.....	" ".....	1789	40 00
	T. E. Osborn.....	" ".....	1790	40 00
	J. Kelley.....	" ".....	1791	35 00
	D. C. Huddleson.....	" ".....	1792	50 00
	W. C. Mills.....	" ".....	1793	25 00
	Mrs. E. R. Hubler....	" ".....	1794	20 00
	W. Townsel.....	" ".....	1795	25 00
	W. C. Weir.....	" ".....	1796	20 00
	J. C. Perry.....	" ".....	1797	12 50
	G. W. Elwell.....	" ".....	1798	40 00
	A. G. McCall.....	" ".....	1799	20 00
	C. B. Enlow.....	Quartermaster's fees.....	1800	5 00
	Joe. Garrettson.....	27d helper to plumber, \$1.50	1801	40 50
28	D. M. Massie.....	Expenses as trustee.....	1802	39 32
1899. Jan. 3	R. M. Rownd, P. M....	Stamped envelopes.....	1803	85 60
	L. B. Wing.....	Expenses meetings.....	1804	9 75
4	R. C. Purdy.....	Fees for cer. scholarship...	1805	6 50
5	L. H. Potter.....	Fees retd on ac. enlistment.	1806	6 50
6	Col. Gas Co.....	Gas.....	1807	135 90
7	F. F. Pavlicek.....	Guide and mess. serv.....	1808	2 50
	R. J. Seymour.....	" ".....	1809	4 87
	F. C. McKinney.....	" ".....	1810	2 62
	F. R. West.....	" ".....	1811	2 65
	M. Snow.....	" ".....	1812	2 62
	Ind. Alkali Wks.....	Savogran.....	1813	18 53
	Mrs. E. R. Hubler....	Clerical work.....	1814	12 80
	Am. Dist. Tel. Co....	Watch box rent.....	1815	27 00
	Cherington P. & E. Co.	Rubber stamp.....	1816	25
	Mitchell Adv. Co.....	Time card.....	1817	1 00
	Krauss, Butler & B. Co.	Rug and shades.....	1818	51 85
	Pfeifer & Boeshans...	O. S. Journal.....	1819	73
	Cent. Ohio Paper Co..	Paper.....	1820	19 00
	D. H. Derflinger.....	Gasoline.....	1821	4 34
	J. N. McDonald.....	Plastering.....	1821	19 00
	Sherwood Mfg. Co....	Cutters.....	1823	3 00
	Jas. Stainbrook.....	Cleaning boilers.....	1824	10 25
	W. Morelan.....	Carpentry.....	1825	1 60
	Babcock & Wilcox Co.	Nuts, bolts, etc.....	1826	68 48
	Col. Rubber & B. Co..	Hdwe supplies.....	1827	26 60
	J. S. Abbott & Co....	Hdwe.....	1828	2 65
	Elliott & Maclean....	Lumber.....	1829	18 75
	Murphy Iron Wks....	Castings.....	1830	8 00
	B. D. Potts.....	Hdwe.....	1831	4 35
	C. Pixler.....	Cleaning boilers.....	1832	43 50
	Jeffrey Mfg. Co.....	Castings.....	1833	30 76
	Stitt, Price & Co....	Cement.....	1834	6 50
	O. T. Corson.....	Advertising.....	1835	15 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Jan. 7	W. D. Hoard Co.....	Advertising.....	1836	13 44
	W. S. Wiggins.....	Rubber stamps	1837	45
	Macmillan & Co.....	Bulletins	1838	1 00
	T. C. Trueblood.....	Copy of report	1839	1 00
	Lemcke & Buechner..	Books	1840	11 60
	Geol. Soc. of Am.....	"	1841	5 00
	Seraphim B. Book Co.	Binding	1842	41 65
	Burrows Bros. Book Co	Books	1843	94 34
	University Café	Meals for trustees	1844	1 75
	H. L. Belden.....	Labor	1845	1 13
	A. F. Wilcox.....	"	1846	15 30
	E. Greiner	Apparatus	1847	2 50
	Denver F. Clay Co....	Crucibles, etc.....	1848	35 05
	Kimball & Mathews...	Photo supplies	1849	3 47
	Kauffman Lattimer Co.	Chemicals and apparatus...	1850	94 79
	Seeds & Mills.....	Feed	1851	142 50
	S. T. Hallsman.....	Painting	1852	2 80
	Col. Buggy Co.....	Repairs	1853	2 00
	Barber Mfg. Co.....	Enamel	1854	2 10
	Burrell & Co.....	Dairy supplies	1855	14 92
	Diamond C. Salt Co...	Salt	1856	2 25
	Creamery Pkg. Co....	Dairy supplies	1857	21 90
	F. B. Fargo & Co.....	"	1858	13 00
	L. Hoster Brew. Co...	Sprouts	1859	6 64
	J. Immel & Son.....	Repairs	1860	4 85
	H. H. Klott.....	"	1861	8 50
	Bausch & L. Opt. Co..	Apparatus	1862	18 98
	Richards & Co.....	Ferrometer	1863	36 00
	W. J. Davidson.....	Mdse	1864	1 00
	Eimer & Amend.....	Muenke apparatus	1865	18 75
	Golding & Sons Co....	Pebbles	1866	6 10
	Fish Press. Brick Co..	Lime and cement	1867	7 40
	McClelland & Co.....	Blank book	1868	60
	J. McAllister	Labor	1869	22 50
	W. Carman	"	1870	7 50
	L. E. Barringer.....	"	1871	4 72
	C. P. Linville.....	"	1872	2 13
	F. Jeffrey	"	1873	8 10
	F. O. Clement.....	Clerical work	1874	3 75
	Keuffel & Esser.....	Apparatus	1875	6 50
	J. Bien & Co.....	Maps	1876	7 75
	A. C. Armstrong & Son	Book	1877	1 35
	Jas. Penn	Drayage	1878	70
	Col. Ice Co.....	Ice	1879	1 10
	Hagar & Graves.....	Groceries	1880	20 09
	W. I. Saunders.....	Papering and painting	1881	48 50
	Elec. Appliance Co....	Elect supplies	1882	6 63
	J. A. Erner & Co.....	"	1883	14 08
	Sipe & Sigler.....	"	1884	8 07
	Weston Elec. Inst. Co.	"	1885	2 00
	C. T. Phillips.....	Paper	1886	16 78
	W. H. Anderson & Co.	Book	1887	3 50
	Lunkenheimer Co....	Regrinding valves	1888	8 68
	J. Ohlen & Sons.....	Steel	1889	75
	Crosby St. G. & V. Co.	3 way cocks	1890	10 05
	Cherington P. & E. Co.	Rubber stamp	1891	75

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Jan. 7	Holmes F. & G Mf. Co.	Bushings	1892	2 09
	E. G. Bailey.....	Labor	1893	38
	E. H. Bailey.....	"	1894	2 55
	H. Judd	Carpentry	1895	2 25
	M. P. Streett.....	Smoke stack	1896	178 80
	T. H. McAllister.....	Photo supplies	1897	27 53
	Chic. L. Sup. & S. Co.	Balance	1898	1 50
	A. Spittal.....	Falling shutter	1899	14 70
	J. M. & W. Westwater.	Elect supplies	1900	2 00
	West. Elec. Co.....	Physical apparatus	1901	14 40
	W. Burdell, Jr.....	Blankets	1902	10 00
	Hammond & Sparh'k.	Vet. hosp. supplies	1903	11 06
	R. C. Osborn.....	Work in museum	1904	7 20
	Kny Sheerer Co.....	Insect pins	1905	14 40
	Murray City Coal Co..	Coal	1906	1,110 19
	Engelke & Bigelow....	Freight and drayage	1907	35 94
	C. H. Woodruff.....	Labor and cash adv.....	1908	60 50
	F. S. Johnston.....	Clerical work	1909	17 55
	Tallmadge Hdw. Co....	Hdwe	1910	22 43
	Blackwood G. & Co....	"	1911	49 01
	H. Braun Sons & Co..	Drugs and surg. instrum'ts.	1912	24 67
	G. E. Stechert.....	Books	1913	271 80
	J. H. Randall.....	Carpentry	1914	21 50
	Kelton & Converse....	Lumber	1915	21 49
	Champlin Ptg. Co.....	Printing	1916	49 10
	P. Hayden S. Hdw. Co.	Hdwe	1917	71 15
	Cap. City Mch. Wks..	"	1918	61 10
	Nitschke Bros	Stationery	1919	11 75
	H. Cole	Tracing cloth	1920	11 75
	Franklin Toil. Sup. Co.	Laundry	1921	4 20
	Col. Supply Co.....	Hdwe	1922	39 87
	Spahr & Glenn.....	Stationery	1923	11 25
	Standard Oil Co.....	Oil	1924	10 48
	Hann & Adair.....	Printing and paper	1925	29 80
	Lily Weeks	Salary Jan. 3-6 inc.....	1926	4 00
	G. A. Goodspeed.....	Salary Dec. 25 to Dec. 31..	1927	9 03
17	Lily Weeks	" Jan. 9-16	1928	5 00
	M. J. Kellenberger....	3 weeks' work dept. dom.		
		econ	1929	15 00
19	Col. Rubber & B. Co..	Tubing and valve	1930	6 20
28	J. H. Canfield.....	Salary Jan., 1899, inst.....	1931	500 00
	Alexis Cope	"	1932	187 50
	C. E. Barnet.....	"	1933	65 00
	Jean Blackford	"	1934	54 17
	E. D. Cockins.....	"	1935	58 33
	F. W. Prentiss.....	"	1936	33 33
	W. F. Hunter.....	"	1937	250 00
	T. F. Hunt.....	"	1938	250 00
	G. W. Knight.....	"	1939	250 00
	W. A. Kellerman.....	"	1940	225 00
	W. McPherson	"	1941	225 00
	C. N. Brown.....	"	1942	225 00
	A. C. Barrows.....	"	1943	225 00
	Edw. Orton.....	"	1944	225 00
	E. A. Eggers.....	"	1945	225 00
	J. R. Smith.....	"	1946	225 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Jan. 28	S. S. James.....	Salary Jan., 1899, inst.....	2003	80 00
	Stella Elliott	" "	2004	75 00
	E. O. Randall.....	" "	2005	70 00
	D. F. Pugh.....	" "	2006	70 00
	E. E. Harrold.....	" "	2007	70 00
	N. H. Brown.....	" "	2008	70 00
	E. E. Somermeier.....	" "	2009	65 00
	F. Ruhlen	" "	2010	60 00
	T. K. Lewis.....	" "	2011	60 00
	A. F. Hall.....	" "	2012	60 00
	W. F. Lavery.....	" "	2013	60 00
	C. B. Frederick.....	" "	2014	60 00
	H. Townshend	" "	2015	55 00
	J. F. Cunningham.....	" "	2016	54 00
	G. S. Kellicott.....	" "	2017	50 00
	M. D. Jeffrey.....	" "	2018	50 00
	A. V. Bleiningner.....	" "	2019	40 00
	L. Allen	" "	2020	40 00
	M. Dresbach	" "	2021	30 00
	F. A. Fish.....	" "	2022	30 00
	A. H. McIntire.....	" "	2023	30 00
	E. L. Ball.....	" "	2024	30 00
	S. E. Rasor.....	" "	2025	30 00
	H. Judd	" "	2026	30 00
	F. J. Hale.....	" "	2027	30 00
	J. B. Parker.....	" "	2028	30 00
	B. F. Maag.....	" "	2029	30 00
	J. H. Vosskuehler.....	" "	2030	30 00
	E. L. Fullmer.....	" "	2031	25 00
	R. Fischer	" "	2032	25 00
	F. O. Clements.....	" "	2033	25 00
	O. V. Brumley.....	" "	2034	20 00
	R. C. Purdy.....	" "	2035	20 00
	G. W. Rightmire.....	" "	2036	20 00
	E. H. Bailey.....	" "	2037	15 00
	F. F. D. Albery.....	" "	2038	15 00
	J. H. Collins.....	" "	2039	10 00
	D. A. Kohr.....	" "	2040	10 00
	R. E. McIntosh.....	" "	2041	10 00
	C. B. Guittard.....	" "	2042	50 00
	H. Gamper	" "	2043	7 50
	W. C. McCracken.....	" "	2044	150 00
	Geo. Rose	" "	2045	65 00
	Chas. Low	" "	2046	54 17
	W. Standley	" "	2047	50 00
	B. LeBay	" "	2048	50 00
	T. Boude	" "	2049	45 00
	W. H. Case.....	" "	2050	45 00
	H. Martz	" "	2051	45 00
	M. Peck	" "	2052	40 00
	T. K. Lewis.....	" "	2053	40 00
	A. Chantler	" "	2054	40 00
	G. A. Goodspeed.....	" "	2055	40 00
	J. H. Brown.....	" "	2056	40 00
	D. D. Geren.....	" "	2057	40 00
	W. Whitestone	" "	2058	40 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Jan. 28	H. Chantler	Salary Jan., 1899, inst	2059	40 00
	G. C. Denny	" "	2060	40 00
	M. N. Cook	" "	2061	40 00
	T. S. Edgington	" "	2062	40 00
	T. E. Osborn	" "	2063	40 00
	J. Kelley	" "	2064	35 00
	D. C. Huddleson	" "	2065	50 00
	W. C. Mills	" "	2066	25 00
	Mrs. E. R. Hubler	" "	2067	20 00
	Wash. Townsell	" "	2068	25 00
	W. C. Wier	" "	2069	20 00
	J. C. Perry	" "	2070	12 50
	G. W. Elwell	" "	2071	40 00
	A. G. McCall	" "	2072	20 00
	J. Covan	" "	2073	44 03
	J. Garretson	" "	2074	30 00
23	L. Weeks	Salary Jan. 16-23	2075	5 00
31	Col. Gas Co.	Gas	2076	118 80
	L. Weeks	Salary Jan. 23-31	2077	7 00
Feb. 1	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.	2078	10 00
	W. I. Chamberlain	Expense meet. Jan. 31, 1899	2079	14 95
2	R. M. Rownd, P. M. .	Postage stamps	2080	41 00
8	C. Pixler	Salary as helper	2081	10 50
7	J. McL. Smith	Expenses meet. Jan 31, Feb. 1	2082	6 40
10	Paul Jones	Expenses as trustee	2083	1 25
14	Lily Weeks	Salary Feb. 6-13	2084	5 00
16	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.	2085	10 00
	J. F. Mack	Expenses as trustee	2086	13 60
20	W. K. Morehead	Archæological coll.	2087	300 00
25	J. H. Canfield	Salary Feb., 1899, inst.	2088	500 00
	Alexis Cope	" "	2089	187 50
	C. E. Barnet	" "	2090	65 00
	F. W. Prentiss	" "	2091	33 33
	Jean Blackford	" "	2092	54 17
	E. D. Cockins	" "	2093	58 33
	T. F. Hunt	" "	2094	250 00
	W. F. Hunter	" "	2095	250 00
	G. W. Knight	" "	2096	250 00
	W. A. Kellerman	" "	2097	225 00
	W. McPherson	" "	2098	225 00
	C. N. Brown	" "	2099	225 00
	A. C. Barrows	" "	2100	225 00
	Edw. Orton, Sr.	" "	2101	225 00
	E. A. Eggers	" "	2102	225 00
	J. R. Smith	" "	2103	225 00
	H. A. Weber	" "	2104	225 00
	W. R. Lazenby	" "	2105	225 00
	F. E. Sanborn	" "	2106	225 00
	S. C. Derby	" "	2107	225 00
	A. M. Bleile	" "	2108	225 00
	R. D. Bohannan	" "	2109	225 00
	W. T. Magruder	" "	2110	225 00
	J. P. Gordy	" "	2111	225 00
	W. H. Scott	" "	2112	225 00
	B. F. Thomas	" "	2113	225 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 2	J. V. Denney.....	Salary Feb., 1899, inst.....	2114	225 00
	B. L. Bowen.....	" " ".....	2115	225 00
	H. Osborn.....	" " ".....	2116	225 00
	N. W. Lord.....	" " ".....	2117	200 00
	F. A. Ray.....	" " ".....	2118	200 00
	G. B. Kauffman.....	" " ".....	2119	200 00
	Edw. Orton, Jr.....	" " ".....	2120	180 00
	J. N. Bradford.....	" " ".....	2121	180 00
	H. J. Noyes.....	" " ".....	2122	166 67
	G. W. McCoard.....	" " ".....	2123	160 00
	C. P. Linhart.....	" " ".....	2124	160 00
	H. C. Lord.....	" " ".....	2125	160 00
	E. A. Hitchcock.....	" " ".....	2126	150 00
	D. S. White.....	" " ".....	2127	150 00
	W. D. Gibbs.....	" " ".....	2128	140 00
	P. G. Bowman.....	" " ".....	2129	140 00
	F. C. Caldwell.....	" " ".....	2130	140 00
	F. C. Clark.....	" " ".....	2130	135 00
	W. H. Page.....	" " ".....	2132	135 00
	S. A. Norton.....	" " ".....	2133	120 00
	R. I. Fulton.....	" " ".....	2134	120 00
	W. H. Siebert.....	" " ".....	2135	120 00
	O. B. Jones.....	" " ".....	2136	120 00
	J. E. Boyd.....	" " ".....	2137	120 00
	E. B. Kinkad.....	" " ".....	2138	110 00
	J. R. Taylor.....	" " ".....	2139	110 00
	C. E. Sherman.....	" " ".....	2140	100 00
	T. E. French.....	" " ".....	2141	100 00
	C. W. Mesloh.....	" " ".....	2142	100 00
	C. L. Arnold.....	" " ".....	2143	100 00
	K. D. Swartzel.....	" " ".....	2144	100 00
	A. W. Hodgman.....	" " ".....	2145	100 00
	W. A. Knight.....	" " ".....	2146	95 00
	C. W. Weick.....	" " ".....	2147	95 00
	F. W. Smyser.....	" " ".....	2148	80 00
	J. H. Schaffner.....	" " ".....	2149	90 00
	C. W. Foulk.....	" " ".....	2150	90 00
	J. A. Bownocker.....	" " ".....	2151	90 00
	C. A. Dye.....	" " ".....	2152	90 00
	W. L. Graves.....	" " ".....	2153	90 00
	J. S. Hine.....	" " ".....	2154	85 00
	F. L. Landacre.....	" " ".....	2155	85 00
	A. E. Vinson.....	" " ".....	2156	80 00
	E. M. Van Harlingen..	" " ".....	2157	80 00
	M. P. Brush.....	" " ".....	2158	80 00
	C. Wissler.....	" " ".....	2159	80 00
	S. S. James.....	" " ".....	2160	80 00
	S. M. Elliott.....	" " ".....	2161	75 00
	E. O. Randall.....	" " ".....	2162	70 00
	D. F. Pugh.....	" " ".....	2163	70 00
	E. E. Harrold.....	" " ".....	2164	70 00
	N. H. Brown.....	" " ".....	2165	70 00
	E. E. Somermeier.....	" " ".....	2166	65 00
	F. Ruhlen.....	" " ".....	2167	60 00
	T. K. Lewis.....	" " ".....	2168	60 00
	A. F. Hall.....	" " ".....	2169	60 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 25	W. F. Lavery.....	Salary Feb., 1899, inst	2170	60 00
	C. B. Frederick.....	" "	2171	60 00
	H. Townshend	" "	2172	55 00
	J. F. Cunningham.....	" "	2173	54 00
	G. S. Kellicott.....	" "	2174	50 00
	M. D. Jeffrey.....	" "	2175	50 00
	A. V. Bleininger.....	" "	2176	40 00
	Lucy Allen	" "	2177	40 00
	M. Dresbach	" "	2178	30 00
	F. A. Fish.....	" "	2179	30 00
	A. H. McIntire.....	" "	2180	30 00
	E. B. Ball.....	" "	2181	30 00
	S. E. Rasor.....	" "	2182	30 00
	H. Judd	" "	2183	30 00
	F. J. Hale.....	" "	2184	30 00
	J. B. Parker.....	" "	2185	30 00
	B. F. Maag.....	" "	2186	30 00
	J. H. Vosskuehler.....	" "	2187	30 00
	E. L. Fullmer.....	" "	2188	25 00
	R. Fischer	" "	2189	25 00
	F. O. Clements.....	" "	2190	25 00
	O. V. Brumley.....	" "	2191	20 00
	R. C. Purdy.....	" "	2192	20 00
	G. W. Rightmire.....	" "	2193	20 00
	E. H. Bailey.....	" "	2194	15 00
	F. F. D. Alberty.....	" "	2195	15 00
	J. H. Collins.....	" "	2196	10 00
	D. A. Kohr.....	" "	2197	10 00
	R. E. McIntosh.....	" "	2198	10 00
	C. B. Guittard.....	" "	2199	50 00
	H. Gamper	" "	2200	7 50
	W. C. McCracken.....	" "	2201	150 00
	Geo. Rose	" "	2202	65 00
	Chas. Low	" "	2203	54 17
	W. Standley	" "	2204	50 00
	B. LeBay	" "	2205	50 00
	T. Boude.....	" "	2206	45 00
	W. H. Case	" "	2207	45 00
	H. Martz	" "	2208	45 00
	M. Peck	" "	2209	40 00
	T. K. Lewis.....	" "	2210	40 00
	A. Chantler	" "	2211	40 00
	G. A. Goodspeed.....	" "	2212	40 00
	J. H. Brown.....	" "	2213	40 00
	D. D. Geren.....	" "	2214	40 00
	W. Whitestine	" "	2215	40 00
	H. Chantler	" "	2216	40 00
	G. C. Denny.....	" "	2217	40 00
	M. V. Cook.....	" "	2218	40 00
	T. S. Edgington.....	" "	2219	40 00
	T. E. Osborn.....	" "	2220	40 00
	J. Kelley	" "	2221	35 00
	D. C. Huddleson.....	" "	2222	50 00
	W. C. Mills.....	" "	2223	25 00
	Mrs. E. R. Hubler....	" "	2224	20 00
	Wash. Townsell.....	" "	2225	25 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 25	W. C. Wier.....	Salary Feb., 1899, inst.	2226	20 00
	J. C. Perry.....	" "	2227	12 50
	G. W. Elwell.....	" "	2228	40 00
	A. G. McCall.....	" "	2229	20 00
	J. Garretson	" "	2230	36 00
	J. Covan	" "	2231	65 00
25	Lily Weeks	Salary Feb. 12-30	2232	5 00
21	N. F. Pheneger.....	Butter fat	2233	113 92
25	T. J. Godfrey.....	Expenses trustee	2234	20 65
	C. Souther	Salary ½ mo., Feb. 14-28.	2235	40 00
	C. H. Woodruff.....	Salary Jan., 1899	2236	60 00
	C. H. Woodruff.....	" Feb., 1899	2237	60 00
28	F. R. West.....	Services as guide	2238	4 87
	M. Snow	" "	2239	2 87
	F. C. Caldwell.....	" supt	2240	75 00
	R. J. Seymour.....	" messenger	2241	4 25
	T. C. McKinney.....	" guide	2242	3 87
	F. J. Pavlicek.....	" "	2243	2 87
	W. S. Orvis.....	Office supplies	2244	3 85
	E. O. Vaille.....	Ohio Directory	2245	1 00
	J. H. Canfield.....	Cash for sundries	2246	15 00
	Nitschke Bros	Printing	2247	20 60
	Ruggles Gale Co.....	Cabinet file	2248	2 00
	Hann & Adair	Printing	2249	10 10
	F. O. Schoedinger.....	Tin boxes	2250	2 00
	M. Armbruster & Sons.	Changing scenery	2251	5 00
	Cherington P. & E. Co.	Dater	2252	50
	Col. Rubber & B. Co..	Waste	2253	14 70
	B. D. Potts.....	Repairs	2254	25
	Hutton Bros	Painting	2255	1 75
	Standard Oil Co.....	Oil	2256	39 59
	Col. Supply Co.....	Repairs	2257	1 35
	H. Braun Sons & Co..	Oil	2258	1 95
	Mitchell Adv. Co.....	Depot time card	2259	60
	Cent. U. Tel. Co.....	Telephone rent	2260	96 75
	Mrs. F. D. Meyers....	Laundry	2261	2 00
	Yardley & Harsh.....	Mon buckets	2262	4 50
	Annis McLaughlin ...	Extra work	2263	4 65
	J. Penn	Drayage	2264	25
	Am. Dist. Tel. Co.....	Messenger service	2265	5 30
	Champlin Ptg. Co.....	Printing	2266	52 10
	Webb Sta. & Ptg. Co..	Record book	2267	2 40
	West. U. Tel. Co.....	Messages	2268	4 60
	P. Hano	Carbon paper	2269	2 25
	Tracy Wells Co.....	Mops, etc.....	2270	12 01
	Krauss, B. & B. Co..	Shades	2271	9 00
	Hanna Pt. Mfg. Co....	Paint	2272	4 60
	Col. Rubber & B. Co..	Hdwe supplies	2273	14 35
	B. D. Potts.....	"	2274	10 36
	Col. Supply Co.....	"	2275	12
	Vogelgesang Fur. Co..	Furnace repair	2276	23 70
	Tallmadge Hdw. Co....	Glass	2277	2 99
	W. Morelan	Carpentry	2278	40
	J. H. Randall.....	"	2289	5 25
	Palmer & Beck.....	Metal roofing	2280	33 17
	General Elec. Co.....	Regulator	2281	144 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 28	M. L. Blose.....	Labor	2282	45
	H. C. Nidy.....	"	2283	6 31
	M. C. Hunter.....	"	2284	8 77
	R. E. McIntosh.....	"	2285	17 50
	J. Hertner	"	2286	90
	Eaton Mch. Wks.....	Forging	2287	1 80
	H. A. Morgan.....	Screens and shades	2288	10 00
	W. N. Saunders.....	Papering	2289	37 70
	Cap. City Mch. Wks...	Repairing	2290	13 06
	Champlin Ptg. Co.....	Printing	2291	26 25
	C. F. Sprague.....	Lantern advertising	2292	10 00
	Lillian Burt	Advertising	2293	15 00
	A. F. Wilcox.....	Labor	2294	6 15
	Library Bureau	Library supplies	2295	3 75
	Am. Soc. of M. Eng....	Book	2296	1 25
	D. C. Munro.....	"	2297	1 00
	Helman F. Co.....	"	2298	28 25
	Kelton & Converse....	Lumber	2299	4 24
	J. H. Randall.....	Carpentry	2300	8 50
	Sheehan & Co.....	Books	2301	15 75
	O. S. Lear.....	Carbon paper	2302	40
	Boston Book Co.....	Magazines	2303	12 00
	Serephim B. B. Co....	Books	2304	103 35
	A. H. Smythe.....	Ink	2305	60
	J. Penn	Draying	2306	1 50
	L. H. Miller.....	Notarial work	2307	3 20
	Burrows Bros. Co....	books	2308	121 09
	G. E. Stechert.....	"	2309	790 71
	Knauth W. & K.....	"	2310	9 73
	Wilbert Morelan	Carpentry	2311	2 60
	Miami Powder Co....	Charcoal	2312	83
	Chicago Blue Pt. P. Co.	B. P. paper	2313	2 64
	A. E. Foote.....	Chemicals	2314	12 65
	Kauffman Lattimer Co.	Apparatus and chemicals...	2315	141 39
	Green, Joyce & Co....	Towels	2316	13 80
	Chic. Lab. S. & S. Co..	Apparatus	2317	9 30
	Baker & Co.....	Platinum	2318	13 71
	Kimball & Mathews...	Photo supplies	2319	11 61
	Mallencrodt Ch. Wks.	Chemicals	2320	57 56
	Franklin Toil. Sup. Co.	Laundry	2321	3 39
	Creamery P. Mfg. Co..	Dairy supplies	2322	66 78
	F. S. Johnston.....	Clerical work	2323	15 90
	J. Boyd	Bottle filler	2324	11 70
	R. A. McClure.....	Lumber	2325	2 41
	Blackwood, G. & Co..	Hdwe	2326	64 56
	Cap. City Mch. Wks..	"	2327	5 15
	M. Imes	Lab. assistance	2328	20 00
	O. Erf	"	2329	20 00
	A. H. Reid.....	Dairy supplies	2330	20 00
	Hoster Brew. Co.....	Sprouts	2331	11 28
	E. Smith	Lab. assistance	2332	20 00
	E. C. Livenspire.....	Smithing	2333	10 15
	J. Immel & Sons.....	Repairs	2334	6 35
	Cher. Ptg. & Eng. Co..	Labels	2335	3 00
	Col. Gas Co.....	Irons	2336	1 65
	Col. Supply Co.....	Hdwe	2337	13 94

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. Feb. 28	Barber Mfg. Co.....	Repairs	2338	31 50
	Plain City Creamery..	Milk	2339	163 80
	B. D. Potts.....	Hdwe	2340	8 48
	Burrell & Co.....	Dairy supplies	2341	3 38
	Kelton & Converse.....	Lumber	2342	2 90
	M. A. Seed Co.....	Mdse	2343	1 26
	Tallmadge Hdw. Co...	Hdwe	2344	1 04
	Ruggles Gale Co.....	Paper	2345	2 75
	Harvard University ...	Astro. telegrams	2346	9 93
	Chem. Elec. Co.....	Daniels' cells	2347	4 52
	Franklin Toil. Sup. Co.	Laundry	2348	75
	Jo. of Com. & Com. Bu.	Books	2349	3 00
	Colt & Co.....	Opt. lantern	2350	44 15
	H. Cole	Reader	2351	60
	Tallmadge Hdw. Co...	Bolts	2352	10
	J. McAllister	Labor	2353	43 75
	Eagle Hdw. Co.....	Mdse	2354	4 32
	Barber Mfg. Co.....	Hdwe	2355	15 30
	Elliot & Maclean.....	Boxes	2356	10 50
	Hayden'le M. & M. Co	Brick	2357	8 76
	Col. Gas Co.....	Coke	2358	6 17
	Col. Transfer Co.....	Ft. and dray	2359	1 24
	C. Engelhard	Porcelain tubes	2360	16 50
	W. Cannan	Labor	2361	12 50
	Tallmadge Hdw. Co...	Hdwe	2362	1 25
	Col. Gas Co.....	Lights	2363	1 50
	Whitall, Tatem & Co.	Mdse	2364	51 04
	Champlin Ptg. Co.....	Printing	2365	4 10
	Nitschke Bros	Stationery	2366	1 65
	Cap. City Mch. Wks...	Locks	2367	2 00
	S. T. Hallzman.....	Painting	2368	20 00
	C. P. Linville.....	Labor	2369	1 20
	B. D. Potts.....	Hdwe	2370	7 21
	J. M. Barringer.....	Labor	2371	2 55
	Palmer & Beck.....	Galvanized hood	2372	7 00
	W. Morelan	Carpentry	2373	2 20
	Blackwood, G. & Co.	Iron can	2374	3 00
	Col. Coal & Lime Co..	Cement	2375	2 25
	Hann & Adair.....	Printing	2376	4 00
	C. H. Davis.....	Sewing machine	2377	35 00
	Am. Elec. H. Co.....	Laundry iron	2378	7 50
	Schermerham & Co ...	Demonstration frames	2379	2 00
	Pratt Institute	Pamphlets	2380	2 50
	Bradley, Munk & Co.	Shears	2381	3 00
	Spencer Lens Co.....	Microscope	2382	37 50
	Z. L. White & Co.....	Gingham	2383	1 18
	Hagar & Graves.....	Groceries	2384	24 22
	McClelland & Co.....	Stationery	2385	1 90
	Parisian Cloak Co.....	Dry goods	2386	3 09
	Krauss, B. & B. Co.	Hassocks	2387	84
	P. G. Bowman.....	Cash paid for groceries	2388	2 41
	Dunn, Taft & Co.....	Dry goods	2389	3 98
	Cent. Ohio Paper Co.	Paper	2390	3 65
	Mrs. J. F. James.....	Cash paid for supplies	2391	3 40
	Weisman & Lilley.....	Dry goods	2392	1 76
	Alpheia Dairy Co.....	Balance ac.....	2393	1 50

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 28	F. C. Clark.....	Stationery	2394	4 75
	Tallmadge Hdw. Co...	Hdwe	2395	24 04
	Elec. Appliance Co...	Elect. supplies	2396	27 64
	Nitschke Bros	Stationery	2397	3 00
	Schoedinger, F. & Co...	Hdwe	2398	2 31
	West. Elec. Co.....	Van de Poele machine	2399	2 50
	Hann & Adair	Stationery	2400	4 50
	Union Mfg. Co.....	Cnuck	2401	16 00
	J. A. Erner & Co....	Elect. supplies	2402	5 06
	J. P. Carlile	Plaster	2403	2 50
	Drawing Sup. Store...	Draw. supplies	2404	1 70
	Schoedinger, F. & Co...	Refrigerator	2405	22 75
	Ohio Tool Co.....	Boxwood	2406	2 40
	Blackwood, G. & Co...	Hardware	2407	22 10
	Miller Furn. Co.....	Stools	2408	10 00
	Kimball & Mathews...	Printing frames	2409	6 00
	B. D. Potts	Hdwe	2410	10 85
	J. H. Randall.....	Carpentry	2411	2 25
	Tallmadge Hdw. Co...	Paint	2412	25
	E. Orton	Cash for sundries	2413	17 02
	Jas. Penn	Draying	2414	1 00
	W. N. Saunders.....	Papering	2415	19 25
	Tallmadge Hdw. Co...	Paint	2416	35
	H. Cole	Thermometers	2417	2 50
	J. C. Porterfield.....	Dynamite	2418	4 35
	Wm. Roberts	Labor	2419	10 80
	W. Morelan	Carpentry	2420	1 00
	J. H. Nold	Labor	2421	4 80
	G. M. Berndroth.....	"	2422	8 80
	Tallmadge Hdw. Co...	Hdwe	2423	16 51
	A. H. Smythe	Stationery	2424	3 25
	G. B. Schulte Sons Co.	Lumber	2425	22 49
	Kelton & Converse....	"	2426	138 43
	H. Gamper	Labor	2427	2 48
	W. Erdman	"	2428	8 66
	Blackwood, G. & Co...	Hdwe	2429	1 14
	Col. Varnish Co.....	Paint	2430	10 20
	P. Hayden S. Hdw. Co	Copper	2431	5 22
	Hann & Adair.....	Painting	2432	1 75
	Drawing Supply Store.	Drawing supplies	2433	3 20
	McClelland & Co.....	Neostyle paper	2434	1 10
	H. Cole	B. P. paper	2435	2 20
	Cent. O. Paper Co....	Paper	2436	2 50
	Kilbourne Jones Co...	Hdwe	2437	4 89
	B. B. Wells.....	Labor	2438	30 83
	S. C. Derby.....	Cash paid for book	2439	1 30
	Hann & Adair.....	Printing	2440	2 45
	L. Weeks	Salary to Feb. 27.....	2441	4 00
	Franklin Toil. Sup. Co.	Laundry	2442	2 00
	C. H. Besly & Co.....	Brass tubing	2443	36
	Crosby S. G. & V. Co..	Ammonia indicator	2444	74 26
	Shilling Fdy. Co.....	Test bars	2445	24 83
	Tallmadge Hdw. Co...	Hdwe	2446	2 90
	J. D. Martin, Jr.....	Labor	2447	22
	G. G. Leinbaugh.....	"	2448	23
	A. H. Lyon.....	"	2449	53

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 28	E. G. Bailey.....	Labor	2450	1 00
	Nitschke Bros	Paper	2451	1 50
	W. T. Magruder.....	Telegram	2452	69
	E. H. Bailey.....	Services	2453	13 20
	L. S. Starrett Co.....	Points	2454	19
	Keasbey & M. Co.....	Pipe coering	2455	11 86
	Jos. Wilckes	Weighing globe	2456	3 60
	J. A. Erner & Co.....	Switch	2457	13
	Cap. City Mch. Wks..	Castings	2458	69
	Col. Brass Co.....	"	2459	4 00
	Simmons Hdw. Co.....	Cup points	2460	1 75
	Col. Supply Co.....	Hdwe supplies	2461	24 42
	R. R. Harkins.....	Labor	2462	22
	Tallmadge Hdw. Co...	Hdwe	2463	2 20
	Blackw'd, Green & Co.	"	2464	36 77
	J. S. Abbott & Co.....	Glass	2465	96
	Col. Gas Co.....	Coke	2466	7 60
	Kelton & Converse...	Lumber	2467	6 11
	W. Morelan	Carpentry	2468	1 00
	J. H. Randall.....	"	2469	28 75
	A. D. Morely.....	"	2470	5 75
	M. P. Streett.....	Masonry	2471	173 70
	Champlin Ptg. Co.....	Printing	2472	2 50
	H. Goldsmith	Music	2473	4 25
	Keuffel & Esser Co....	Engineering instruments...	2474	27 62
	Col. Supply Co.....	Hdwe supplies	2475	8 26
	W. B. Calkins.....	Work in store-room	2476	36 90
	R. W. Funk.....	"	2477	13 27
	J. H. Randall.....	Carpentry	2478	6 50
	W. N. Saunders.....	Painting	2479	1 50
	A. Spittal	Scientific instruments	2480	41 35
	H. Kaiser	Hdwe	2481	1 28
	I. Melling	Baskets	2482	4 50
	J. & G. Butler.....	Soap	2483	20 00
	J. C. Sherwood.....	Basket ball	2484	4 50
	G. W. Clark & Co.....	Lumber	2485	6 80
	McClelland & Co.....	Office supplies	2486	10 27
	Schoedinger, F. & Co..	Hdwe	2487	8 51
	Fkl. Toil. Sup. Co....	Laundry	2488	36 61
	C. P. Linhart.....	Repairs	2489	1 80
	West. Elec. Co.....	Elect supplies	2490	11 13
	Ziegler Elec. Co.....	" apparatus	2491	6 39
	J. M. & W. Westwater.	Shakers	2492	7 50
	Library Bureau	Brass tips	2493	7 20
	Miller Furn. Co.....	Tables	2494	9 00
	H. J. Green.....	Scientific instruments	2495	48 00
	Wm. Gaertner & Co...	Scientific instruments	2496	175 00
	Clev. Mch. & Screw Co.	Steel balls	2497	2 80
	Champlin Ptg. Co.....	Printing	2498	2 50
	Hammond & Sparh'k.	Feeding stock	2499	30 50
	Col. Wire & I. Wks...	Wire guards	2500	10 00
	Reynolds Bros	Repairs	2501	50
	H. Braun Sons & Co..	Museum jars	2502	12 00
	Hann & Adair	Printing	2503	2 40
	Tallmadge Hdw. Co...	Hdwe	2504	2 86
	J. S. Hine.....	Book	2505	2 95

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
Feb. 28	H. Braun Sons & Co...	Drugs and supplies	2506	2 82
	Schoedinger, F. & Co..	Letter scale	2507	2 25
	A. W. Jackson & Son..	Binding	2508	13 05
	F. L. Landacre.....	Specimens	2509	1 50
	Col. Supply Co.....	Hdwe supplies	2510	8 15
	W. N. Saunders.....	Papering	2511	30 39
	Engelke & Bigelow...	Freight and dray.....	2512	38 74
	Murray City Coal Co..	Coal	2513	1,164 44
	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	2514	10 00
March 4	W. I. Chamberlain....	Expenses trustee	2515	13 45
6	Col. Gas Co.....	Gas	2516	112 95
7	Lily Weeks	Salary to Mar. 3.....	2517	5 00
10	T. J. Godfrey.....	Expenses meeting	2518	9 15
	F. C. McKinney.....	Guide serv.....	2519	4 87
	F. R. West.....	"	2520	2 12
	M. Snow	"	2521	1 87
	R. J. Seymour.....	"	2522	4 25
	F. J. Pavlicek.....	"	2523	4 25
	E. C. Karshner.....	"	2524	2 00
	Mrs. E. R. Hubler....	Clerical work	2525	5 19
	C. H. Woodruff.....	Draying	2526	2 50
	A. A. Ag. Col. & E. Sta	Membership	2527	10 00
	W. S. Orvis.....	Supplies	2528	3 10
	Quinius & Ridenour..	Files	2529	1 00
	J. M. & W. Westwater.	Lamp burners	2530	75
	Mrs. F. D. Meyers....	Laundry	2531	1 13
	Am. Dist. Tel. Co....	Service	2532	2 10
	C. U. Tel. Co.....	"	2533	4 30
	A. McLaughlin.....	Clerical work	2534	1 95
	H. R. Powell.....	"	2535	4 35
	C. E. Bedwell.....	Fire ins.....	2536	41 25
	Lauterbach & Eilber..	"	2537	27 50
	Bryson, B. & Co.....	"	2538	68 74
	Bancroft & McElroy...	"	2539	27 50
	Masury, Young & Co..	Oil	2540	23 82
	McAllister, M. & Co..	Furniture	2541	20 50
	D. C. Beggs Co.....	Rug and screen	2542	20 00
	Vogelgesang Fur. Co..	Grate	2543	3 20
	C. Pixler	Labor	2544	18 00
	Puntenney, E. & Co...	Piano use	2545	4 00
	H. Goldsmith	Mdse	2546	12 37
	O. S. Journal Co.....	Advertising	2547	20 00
	Zanesville High School	Advertising	2548	10 00
	O. T. Corson.....	"	2549	22 50
	Myers Bros	Printing	2550	3 00
	Yardley & Harsh.....	Waste basket	2551	75
	W. H. Lowdermilk...	Reports	2552	16 00
	O. S. Lear	Furniture	2553	12 50
	Writer Pub. Co.....	"The Writer"	2554	15
	Am. Pharm. Assn....	Books	2555	5 50
	Publishers' Weekly ..	Catalogue	2556	3 50
	Am. Inst. of E. E.....	Subscription	2557	5 00
	Burrows Bros. Co....	Books	2558	42 82
	Century Co	Century	2559	29
	Ginn & Co.....	Book	2560	2 00
	W. H. Siebert.....	"	2561	1 90

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. March 10	I. Ingram	Work in library	2562	5 40
	H. R. Farnham	"	2563	4 40
	L. T. Williams	"	2564	23 00
	G. E. Stechert	Books	2565	340 39
	P. P. Hannon	Clerical work	2566	2 00
	Kauffman Lattimer Co.	Chemicals	2567	69 30
	Glucose S. Ref. Co.	Meal	2568	39 00
	M. Imes	Lab. assistance	2569	20 00
	O. Erf	"	2570	20 00
	E. Smith	"	2571	40 00
	Franklin Toil. Sup. Co.	Laundry	2572	1 75
	F. S. Johnston	Clerical work	2573	13 15
	C. O. Zavitz	Expenses delegate	2574	13 57
	J. F. Cunningham	Sundries	2575	1 40
	M. Mills	Work in museum	2576	11 87
	B. D. Potts	Hdwe	2577	2 72
	Standard Oil Co.	Oil	2578	98
	H. Cole	Paper	2579	1 25
	Col. Gas Co.	Coke	2580	6 89
	Penna. Fuel Co.	Coal	2581	11 28
	E. Orton, Jr.	Clerical work	2582	2 24
	Hayden's M. & M. Co.	Clay	2583	5 71
	Dundon & Co.	Sawdust	2584	3 00
	J. McAllister	Labor	2585	30 00
	W. Cannan	"	2586	10 00
	L. Fink	Molding	2587	1 92
	Colt. & Co.	Lamp burners	2588	85
	F. Jeffrey	Labor	2589	6 90
	Nitschke Bros.	Printing	2590	9 27
	Elliot & Maclean	Lumber	2591	37 16
	Hager & Graves	Groceries	2592	9 93
	Krauss, B. & B. Co.	Brass rings	2593	1 00
	J. Schermhorn	Scissors	2594	4 15
	Miller Furn. Co.	Furniture	2595	164 75
	W. Morelan	Carpentry	2596	2 80
	S. T. Hallsman	Painting	2597	10 00
	T. K. Lewis	Supplies	2598	5 25
	Thompson & Co.	"	2599	116 06
	E. Doddington & Co.	Furniture	2600	26 00
	Polley & Co.	Books	2601	20 00
	T. H. McAllister	Lantern slides	2602	9 13
	Bausch & L. Opt. Co.	Microscope	2603	14 95
	A. Spittal	Labor	2604	37 33
	General Elec. Co.	Elect. apparatus	2605	76 00
	J. G. Biddle	"	2606	92 55
	Queen & Co.	Scientific apparatus	2607	129 60
	Schoedinger, F. & Co.	Hdwe	2608	8 70
	E. J. Osler	Specimens	2609	14 50
	R. C. Osburn	Work in museum	2610	8 55
	Spahr & Glenn	Printing	2611	1 75
	Col. Supply Co.	Hdwe supplies	2612	40
	Cent. Ohio Paper Co.	Paper	2613	27 75
	Lincoln Elec. Co.	Disks	2614	31 50
	West'gh'use E. & M. Co.	Elect. supplies	2615	95
	R. E. McIntosh	Labor	2616	5 25
	Mansfield T. Cop. Co.	Common segments	2617	10 73

STATEMENT II—Continued

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. March 10	Elec. Appliance Co....	Elect. supplies	2618	16 20
	Blackwood, G. & Co...	Hdwe	2619	3 52
	Morse Tw't D. & M. Co	Drills	2620	21 23
	C. A. Sterlinger & Co.	Tools	2621	20 13
	Wm. Erdman	Labor	2622	20 43
	B. B. Wells	"	2623	10 88
	H. Gamper	"	2624	18 83
	J. H. Nold	"	2625	1 05
	G. M. Berndroth.....	"	2626	6 40
	Kilbourne Jones Co...	Locks	2627	2 25
	K. Nurian	Labor	2628	12 00
	H. J. Noyes	Salary March inst.....	2629	166 67
	L. C. Warden	Thermometers	2630	80
	Denning & Co	Hdwe	2631	18 90
	Payne McD. Hdw. Co.	"	2632	62 40
	E. Thompson & Co...	Enc. of Law	2633	6 00
	F. N. Beebe	Iowa Reports	2634	148 50
	Anderson & Co	Books	2635	24 00
	Cap. City Mch. Wks..	Hdwe	2636	5 11
	C. E. Barnet	Clerical work	2637	12 65
	Dunn, Taft & Co	Velvet	2638	1 40
	E. H. Bailey	Extra services	2639	7 95
	E. G. Bailey	Labor	2640	2 56
	F. J. Hale	" and material	2641	12 60
	McClelland & Co	Office supplies	2642	4 00
	C. Wissler	Stationery	2643	11 20
	R. W. Funk	Labor	2644	13 20
	Keyless Lock Co	Lock	2645	1 00
	Heath & Co	Books	2646	4 72
	W. F. Lavery	Services	2647	21 00
	Murray City Coal Co..	Coal	2648	1,150 03
	Engelke & Bigelow...	Freight and drayage	2649	27 35
	Col. M. & M. Sup. Co.	Hdwe supplies	2650	21 82
	Champlin Ptg. Co	Printing	2651	17 10
	Kelton & Converse...	Lumber	2652	54 21
	Tallmadge Hdw. Co...	Hdwe	2653	29 80
	M. C. Hunter	Labor	2654	4 73
13	Lily Weeks	Salary March 6-13, 1899...	2655	5 00
14	Lawrence Maxwell ..	Services Page will case....	2656	500 00
24	Mrs. M. J. Kellenberger	" dept. dom. sci.....	2657	15 00
25	J. H. Canfield	Salary March, 1899, inst...	2658	500 00
	Alexis Cope	"	2659	187 50
	C. E. Barnet	"	2660	65 00
	F. W. Prentiss	"	2661	33 33
	Jean Blackford	"	2662	54 17
	E. D. Cockins	"	2663	58 33
	T. F. Hunt	"	2664	250 00
	W. F. Hunter	"	2665	250 00
	G. W. Knight	"	2666	250 00
	W. A. Kellerman	"	2667	225 00
	W. McPherson	"	2668	225 00
	C. N. Brown	"	2669	225 00
	A. C. Barrows	"	2670	225 00
	Edw. Orton	"	2671	225 00
	E. A. Eggers	"	2672	225 00
	J. R. Smith	"	2673	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. March 10	H. A. Weber.....	Salary March, 1899, inst ...	2674	225 00
	W. R. Lazenby.....	" "	2675	225 00
	F. E. Sanborn.....	" "	2676	225 00
	S. C. Derby.....	" "	2677	225 00
	A. M. Bleile.....	" "	2678	225 00
	R. D. Bohannon.....	" "	2679	225 00
	W. T. Magruder.....	" "	2680	225 00
	J. P. Gordy.....	" "	2681	225 00
	W. H. Scott.....	" "	2682	225 00
	B. F. Brown.....	" "	2683	225 00
	J. V. Denney.....	" "	2684	225 00
	B. L. Bowen.....	" "	2685	225 00
	H. Osborn.....	" "	2686	225 00
	N. W. Lord.....	" "	2687	200 00
	F. A. Ray.....	" "	2688	200 00
	G. B. Kauffman.....	" "	2689	200 00
	Edw. Orton, Jr.....	" "	2690	180 00
	J. N. Bradford.....	" "	2691	180 00
	G. W. McCoard.....	" "	2692	160 00
	C. P. Linhart.....	" "	2693	160 00
	H. C. Lord.....	" "	2694	160 00
	E. A. Hitchcock.....	" "	2695	150 00
	D. S. White.....	" "	2696	150 00
	W. D. Gibbs.....	" "	2697	140 00
	P. G. Bowman.....	" "	2698	140 00
	F. C. Caldwell.....	" "	2699	140 00
	F. C. Clark.....	" "	2700	135 00
	W. H. Page.....	" "	2701	135 00
	S. A. Norton.....	" "	2702	120 00
	R. I. Fulton.....	" "	2703	120 00
	W. H. Siebert.....	" "	2704	120 00
	O. B. Jones.....	" "	2705	120 00
	J. E. Boyd.....	" "	2706	120 00
	E. B. Kinkead.....	" "	2707	110 00
	J. R. Taylor.....	" "	2708	110 00
	C. E. Sherman.....	" "	2709	100 00
	T. E. French.....	" "	2710	100 00
	C. W. Mesloh.....	" "	2711	100 00
	C. L. Arnold.....	" "	2712	100 00
	K. D. Swartzel.....	" "	2713	100 00
	A. W. Hodgman.....	" "	2714	100 00
	W. A. Knight.....	" "	2715	95 00
	C. W. Weick.....	" "	2716	95 00
	F. W. Smyser.....	" "	2717	80 00
	J. H. Schaffner.....	" "	2718	90 00
	C. W. Foulk.....	" "	2719	90 00
	J. A. Bownocker.....	" "	2720	90 00
	C. A. Dye.....	" "	2721	90 00
	W. L. Graves.....	" "	2722	90 00
	J. S. Hine.....	" "	2723	85 00
	F. L. Landacre.....	" "	2724	85 00
	A. E. Vinson.....	" "	2725	80 00
	E. M. Van Harlinger..	" "	2726	80 00
	M. P. Brush.....	" "	2727	80 00
	C. Wissler.....	" "	2728	80 00
	C. Souther.....	" "	2729	80 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. March 25	S. M. Elliott.....	Salary March, 1899, inst ...	2730	75 00
	E. O. Randall.....	" " " " " " " "	2731	70 00
	D. F. Pugh.....	" " " " " " " "	2732	70 00
	E. E. Harrold.....	" " " " " " " "	2733	70 00
	N. H. Brown.....	" " " " " " " "	2734	70 00
	E. E. Sommermeier.....	" " " " " " " "	2735	65 00
	F. Ruhlen.....	" " " " " " " "	2736	60 00
	T. K. Lewis.....	" " " " " " " "	2737	60 00
	A. F. Hall.....	" " " " " " " "	2738	60 00
	W. F. Lavery.....	" " " " " " " "	2739	60 00
	C. B. Frederick.....	" " " " " " " "	2740	60 00
	H. Townshend.....	" " " " " " " "	2741	55 00
	J. F. Cunningham.....	" " " " " " " "	2742	54 00
	G. S. Kellicott.....	" " " " " " " "	2743	50 00
	M. D. Jeffrey.....	" " " " " " " "	2744	50 00
	A. V. Bleininger.....	" " " " " " " "	2745	40 00
	L. Allen.....	" " " " " " " "	2746	40 00
	M. Dresbach.....	" " " " " " " "	2747	30 00
	F. A. Fish.....	" " " " " " " "	2748	30 00
	A. H. McIntire.....	" " " " " " " "	2749	30 00
	E. L. Ball.....	" " " " " " " "	2750	30 00
	S. E. Rasor.....	" " " " " " " "	2751	30 00
	H. Judd.....	" " " " " " " "	2752	30 00
	F. J. Hale.....	" " " " " " " "	2753	30 00
	J. B. Parker.....	" " " " " " " "	2754	30 00
	B. F. Maag.....	" " " " " " " "	2755	30 00
	J. H. Vosskuehler.....	" " " " " " " "	2756	30 00
	E. L. Fullmer.....	" " " " " " " "	2757	25 00
	R. Fischer.....	" " " " " " " "	2758	25 00
	F. O. Clements.....	" " " " " " " "	2759	25 00
	O. V. Brumley.....	" " " " " " " "	2760	20 00
	R. C. Purdy.....	" " " " " " " "	2761	20 00
	G. W. Rightmire.....	" " " " " " " "	2762	20 00
	E. H. Bailey.....	" " " " " " " "	2763	15 00
	F. F. D. Albery.....	" " " " " " " "	2764	15 00
	J. H. Collins.....	" " " " " " " "	2765	10 00
	D. A. Kohr.....	" " " " " " " "	2766	10 00
	R. E. McIntosh.....	" " " " " " " "	2767	10 00
	C. B. Guittard.....	" " " " " " " "	2768	50 00
	H. Gamper.....	" " " " " " " "	2769	7 50
	W. C. McCracken.....	" " " " " " " "	2770	150 00
	Geo. Rose.....	" " " " " " " "	2771	65 00
	Chas. Low.....	" " " " " " " "	2772	54 17
	W. Standley.....	" " " " " " " "	2773	50 00
	B. LeBay.....	" " " " " " " "	2774	50 00
	T. Boude.....	" " " " " " " "	2775	45 00
	W. H. Case.....	" " " " " " " "	2776	45 00
	H. Martz.....	" " " " " " " "	2777	45 00
	M. Peck.....	" " " " " " " "	2778	40 00
	F. K. Luke.....	" " " " " " " "	2779	40 00
	A. Chantler.....	" " " " " " " "	2780	40 00
	G. A. Goodspeed.....	" " " " " " " "	2781	40 00
	J. H. Brown.....	" " " " " " " "	2782	40 00
	D. D. Geren.....	" " " " " " " "	2783	40 00
	W. Whitestone.....	" " " " " " " "	2784	40 00
	H. Chantler.....	" " " " " " " "	2785	40 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
March 25	G. C. Denny.....	Salary March, 1899, inst ..	2786	40 00
	M. N. Cook.....	" " ..	2787	40 00
	T. S. Edgington.....	" " ..	2788	40 00
	T. E. Osborn.....	" " ..	2789	40 00
	J. Kelley	" " ..	2790	35 00
	D. C. Huddleson.....	" " ..	2791	50 00
	W. C. Mills.....	" " ..	2792	25 00
	Mrs. E. R. Hubler....	" " ..	2793	20 00
	W. Townsel	" " ..	2794	25 00
	W. C. Wier.....	" " ..	2795	20 00
	J. C. Perry.....	" " ..	2796	12 50
	G. W. Elwell.....	" " ..	2797	40 00
	A. G. McCall.....	" " ..	2798	20 00
	J. Garretson	" " ..	2799	30 00
	J. Covan	" " ..	2800	65 00
	C. H. Woodruff.....	" " ..	2801	60 00
	Lily Weeks	Salary as maid	2802	5 00
	Lily Weeks	" " ..	2803	5 00
April 1	R. C. Purdy.....	Ceramics scholarship	2804	5 00
March 31	F. Graham	Fees refunded ac. war.....	2805	5 00
April 1	F. H. Burr.....	" " ..	2806	6 00
	R. M. Rownd, P. M....	Postage	2807	10 00
	Lily Weeks	Salary as maid	2808	3 00
	C. F. Roy.....	Refund of fees ac. war.....	2809	7 00
6	T. J. Godfrey.....	Expenses as trustee	2810	13 05
5	W. I. Chamberlain....	" " ..	2811	19 05
8	F. R. West.....	Guide	2812	2 00
	F. C. McKinney.....	"	2813	4 62
	R. J. Seymour.....	"	2814	2 50
	F. J. Pavlicek.....	"	2815	3 62
	M. Snow	"	2816	4 00
	Lawrence Press Co....	Printing vouchers	2817	4 00
	Standard Oil Co.....	Oil	2818	42 21
	F. O. Schoedinger....	Hdwe	2819	90
	Tracy Wells Co.....	Brooms, mops, etc.....	2820	16 55
	Lynas Bros	Candles	2821	1 00
	C. E. Miller.....	Drawing	2822	2 25
	Laning Ptg. Co.....	Subscription	2823	1 00
	Mrs. F. D. Meyers....	Laundry	2824	2 33
	Coll. Prests Asso of O.	Membership	2825	3 00
	Geo. T. Johnson.....	Toilet paper	2826	7 50
	Am. Dist. Tel. Co....	Signal box rent	2827	27 30
	W. E. Whitacre.....	Clerical work	2828	1 80
	Mich. Brush Co.....	Brushes	2829	11 05
	H. Powell	Clerical work	2830	6 45
	Mrs. E. R. Hubler....	"	2831	5 02
	Jeffrey Mfg. Co.....	Castings	2832	6 00
	Sherwood Mfg. Co....	Cutters	2833	3 00
	Pneumatic W. Chk Co	Repairs, etc.	2834	3 10
	Miller Furn. Co.....	Furniture	2835	12 80
	Col. Brass Co.....	Urinal and tank	2836	15 00
	Col. Coal & Lime Co..	Cement	2837	3 25
	F. Charles	Drying	2838	50
	M. P. Streett.....	Masonry	2839	13 20
	The Lantern	Advertising	2840	60 00
	C. H. Evans & Co....	"	2841	5 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
April 8	Agr. Student Pub. Co.	Advertising	2842	40 00
	Penn. Fuel Co.	Coal	2843	37 88
	I. Ingram	Clerical work	2844	11 63
	R. C. Vance	"	2845	5 00
	B. F. Yates	"	2846	5 00
	P. P. Hammon	"	2847	2 00
	Spahr & Glenn	Cards	2848	2 25
	McAllister, M. & Co..	Desk	2849	25 00
	E. S. Werner	Magazine	2850	1 00
	Pub. Weekly	Index	2851	3 50
	E. S. Field	Library supplies	2852	19 90
	Burnham A. B. Store..	Class records	2853	15 00
	Library Bureau	Library supplies	2854	8 50
	W. F. Draper	Books	2855	10 00
	Am. Assn. for Adv. sci	Magazines	2856	2 50
	Am. Elec. Directory..	Directories	2857	5 00
	Boston Test Labr.	Periodicals	2858	6 00
	L. Williams	Attendance at library	2859	9 05
	Jas. Penn	Carting	2860	2 80
	Seraphim B. Book Co.	Binding	2861	84 55
	C. F. Milligan	Books	2862	40 00
	Kauffman Lattimer Co.	Chemicals and apparatus ..	2863	87 25
	Watertown Therm. Co.	Chem. thermometer	2864	4 50
	Baker & A. Chem. Co.	Chemicals	2865	2 45
	Mallmekrodt Ch. Wks.	Chem. and apparatus	2866	27 81
	E. Greiner	Apparatus	2867	10 75
	J. Carbutt	Photo supplies	2868	127 61
	Eimer & Amend	Apparatus	2869	1 35
	Richards & Co.	"	2870	31 23
	F. C. Long	Work in museum	2871	3 00
	F. S. Johnston	Clerical work	2872	14 10
	O. Erf	Lab. work	2873	20 00
	E. B. Meyrowitz	Microscope slides	2874	4 59
	E. M. Van Harlingen.	Cash advanced	2875	22 55
	J. McAllister	Labor	2876	24 00
	Wm. Cannan	"	2877	12 13
	Col. Gas Co.	Gas and coke	2878	175 78
	J. H. Nold	Work	2879	4 75
	Kelton & Converse ..	Lumber	2880	3 60
	Keuffel & Esser	Drawing instruments	2881	80 89
	B. D. Potts	Hdwe	2882	6 79
	F. & R. Lazarus & Co.	Boots	2883	3 75
	Col. E. Elec. Lt. Co. .	Elect. work	2884	2 00
	Payne McD. Hdw. Co.	Hdwe	2885	12 31
	Nitschke Bros	Stationery and printing ..	2886	7 50
	Am. Grocery Co.	Groceries	2887	9 72
	C. H. Davis	Sewing machine	2888	38 50
	A. Dobbie	Dry goods	2889	11 71
	Bausch & L. Opt. Co..	Lens, shutter, etc.	2890	40 57
	E. Doddington & Co..	Lumber	2891	47 78
	R. M. Rownd, P. M. .	Postage	2892	31 00
	C. H. Woodruff	Cash advanced	2893	1 25
	S. T. Hallsman	Painting	2894	12 00
	J. S. Abbott & Co. .	Hardware	2895	14 78
	Kimball & Mathews..	Photo supplies	2896	32 60
	Burross Bros. Co.	Books	2897	188 02

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
April 8	C. E. Thorne.....	Bees	2898	10 00
	S. R. Moore.....	B. B. bushes	2899	1 50
	W. Erdman.....	Labor	2900	16 63
	G. M. Berndroth.....	"	2901	2 00
	A. H. Lynn.....	"	2902	3 05
	B. B. Wells.....	"	2903	6 38
	Morse T. Dr. & M. Co.	Taps	2904	1 09
	W. F. Hunter.....	Cash advanced	2905	3 50
	Cap. City Mch. Wks..	Hdwe	2906	20 80
	Col. Mill & M. S. Co..	Valves	2907	3 68
	Col. Supply Co.....	Hdwe	2908	25 19
	Blackwood, G. & Co..	"	2909	22 70
	J. S. Bushnell.....	Reducing wheel	2910	11 50
	Shilling Fdy. Co.....	Castings	2911	76
	Kilbourne J. Mfg. Co..	Lumber	2912	3 85
	Brown & S. Mfg. Co..	Gear model	2913	50 00
	F. J. Hale.....	Extra services	2914	4 40
	E. H. Bailey.....	"	2915	3 15
	H. Judd.....	"	2916	1 75
	E. G. Bailey.....	Helping in laboratory	2917	4 44
	H. R. Worthington...	Ammonia meter	2918	21 25
	Duval Met. Pkg. Co..	Packing	2919	4 84
	C. M. Giddings.....	Dynamometer	2920	45 00
	Lumkenheimer Co.....	Regrinding valves	2921	14 92
	Crane Co.....	Valve and bushing	2922	4 66
	H. J. Green.....	Scientific instruments	2923	55 00
	Weston Elec. Inst. Co.	Elect. "	2924	261 00
	E. G. Smith.....	Scientific instruments	2925	27 46
	J. G. Biddle.....	Thompson lamp	2926	27 00
	Queen & Co.....	Elect. cell	2927	27 50
	A. Spittal.....	Labor	2928	68 50
	Tallmadge Hdwe. Co..	Hdwe	2929	20 03
	McClelland & Co.....	Stationery	2930	49 75
	J. McL. Smith.....	Expenses trustee	2931	11 25
	Braun Sons & Co.....	Surg. instr.	2932	2 70
	Franklin Toil. Sup. Co.	Laundry	2933	41 53
	L. S. Wells.....	Books	2934	1 62
	Harper & Bros.....	Book	2935	65
	Perry Smythe	Picture frames	2936	1 55
	Terry Eng. Co.....	Etchings	2937	5 52
	Heath & Co.....	Books	2938	7 20
	Schoedinger, F. & Co..	Hdwe	2939	36 16
	R. M. Rownd, P. M....	Postage	2940	10 00
	Champlin, Ptg. Co....	Printing	2941	24 00
	W. Morelan.....	Carpentry	2942	2 60
	Barber Mfg. Co.....	Changing refrigerator	2943	64 24
	Murray C. Coal Co....	Coal	2944	953 79
	Engelke & Bigelow...	Freight and hauling	2945	26 26
	C. P. Harris.....	Oratorical contest expenses.	2946	25 00
10	Lily Weeks	Salary as maid	2947	5 00
	R. M. Rownd, P. M....	Postage deposit	2948	25 00
12	Col. Water Works....	Water rents and charges...	2949	533 83
	J. T. Mack.....	Expenses trustee	2950	24 70
	H. Gamber.....	Services as janitor	2951	3 75
14	W. I. Chamberlain....	Expenses trustee	2952	13 85
	D. K. Watson.....	Exp. Morrill mem. address.	2953	40 06

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
April 15	W. E. Henry.....	Bagging and hauling books.	2954	4 80
	West. U. Tel. Co.....	Teleg. service	2955	6 38
	T. J. Burrill.....	Expenses Morrill mem. ad.	2956	21 60
	F. W. Prentiss.....	B-E. for F. L. Dames....	2957	11 28
	F. W. Prentiss.....	B-E. for C. A. Kahlbaum..	2958	8 77
	F. C. Clark.....	Cash adv. for postage	2959	1 19
	H. Graham	Refund fees ac. war.....	2960	4 50
17	Lily Weeks	Salary as maid	2961	5 00
	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	2962	20 00
22	F. C. Clark.....	Cash advanced	2963	3 75
	F. C. Caldwell.....	Supt. elect. plant.....	2964	100 00
24	Lily Weeks	Salary as maid	2965	5 00
29	J. H. Canfield.....	Salary April, 1899, inst....	2966	500 00
	Alexis Cope	" "	2967	187 50
	C. E. Barnet.....	" "	2968	65 00
	F. W. Prentiss.....	" "	2969	33 33
	Jean Blackford	" "	2970	54 17
	E. D. Cockins.....	" "	2971	58 33
	T. F. Hunt.....	" "	2972	250 00
	W. A. Kellerman.....	" "	2973	225 00
	W. McPherson	" "	2974	225 00
	C. N. Brown.....	" "	2975	225 00
	A. C. Barrows.....	" "	2976	225 00
	Edw. Orton, Sr.....	" "	2977	225 00
	E. A. Eggers.....	" "	2978	225 00
	J. R. Smith.....	" "	2979	225 00
	H. A. Weber.....	" "	2980	225 00
	W. R. Lazenby.....	" "	2981	225 00
	S. C. Derby.....	" "	2982	225 00
	A. M. Bleile.....	" "	2983	225 00
	R. D. Bohannan.....	" "	2984	225 00
	W. T. Magruder.....	" "	2985	225 00
	J. P. Gordy.....	" "	2986	225 00
	W. H. Scott.....	" "	2987	225 00
	B. F. Thomas.....	" "	2988	225 00
	J. V. Denney.....	" "	2989	225 00
	B. L. Bowen.....	" "	2990	225 00
	H. Osborn	" "	2991	225 00
	N. W. Lord.....	" "	2992	200 00
	F. A. Ray.....	" "	2993	200 00
	G. B. Kauffman.....	" "	2994	200 00
	Edw. Orton, Jr.....	" "	2995	180 00
	J. N. Bradford.....	" "	2996	180 00
	G. W. McCoard.....	" "	2997	160 00
	C. P. Linhart.....	" "	2998	160 00
	H. C. Lord.....	" "	2999	160 00
	E. A. Hitchcock.....	" "	3000	150 00
	D. S. White.....	" "	3001	150 00
	W. D. Gibbs.....	" "	3002	140 00
	P. G. Bowman.....	" "	3003	140 00
	F. C. Caldwell.....	" "	3004	140 00
	F. C. Clark.....	" "	3005	135 00
	W. H. Page.....	" "	3006	135 00
	S. A. Norton.....	" "	3007	120 00
	R. I. Fulton.....	" "	3008	120 00
	W. H. Siebert.....	" "	3009	120 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
April 29	O. B. Jones.....	Salary April, 1899, inst....	3010	120 00
	J. E. Boyd.....	" " " " " " " "	3011	120 00
	E. B. Kinkead.....	" " " " " " " "	3012	110 00
	J. R. Taylor.....	" " " " " " " "	3013	110 00
	C. E. Sherman.....	" " " " " " " "	3015	100 00
	T. E. French.....	" " " " " " " "	3015	100 00
	C. W. Mesloh.....	" " " " " " " "	3016	100 00
	C. L. Arnold.....	" " " " " " " "	3017	100 00
	K. D. Swartzel.....	" " " " " " " "	3018	100 00
	A. W. Hodgman.....	" " " " " " " "	3019	100 00
	W. A. Knight.....	" " " " " " " "	3020	95 00
	C. W. Weick.....	" " " " " " " "	3021	95 00
	F. W. Smyser.....	" " " " " " " "	3022	80 00
	J. H. Schaffner.....	" " " " " " " "	3023	90 00
	C. W. Foulk.....	" " " " " " " "	3024	90 00
	J. A. Bownocker.....	" " " " " " " "	3025	90 00
	C. A. Dye.....	" " " " " " " "	3026	90 00
	W. L. Graves.....	" " " " " " " "	3027	90 00
	J. S. Hine.....	" " " " " " " "	3028	85 00
	F. L. Landacre.....	" " " " " " " "	3029	85 00
	A. E. Vinson.....	" " " " " " " "	3030	80 00
	E. M. Van Harlingen.	" " " " " " " "	3031	80 00
	M. P. Brush.....	" " " " " " " "	3032	80 00
	C. Wissler.....	" " " " " " " "	3033	80 00
	C. Souther.....	" " " " " " " "	3034	80 00
	S. M. Elliott.....	" " " " " " " "	3035	75 00
	E. O. Randall.....	" " " " " " " "	3036	70 00
	D. F. Pugh.....	" " " " " " " "	3037	70 00
	E. E. Harrold.....	" " " " " " " "	3038	70 00
	N. H. Brown.....	" " " " " " " "	3039	70 00
	E. E. Somermeier.....	" " " " " " " "	3040	65 00
	F. Ruhlen.....	" " " " " " " "	3041	60 00
	T. K. Lewis.....	" " " " " " " "	3042	60 00
	A. F. Hall.....	" " " " " " " "	3043	60 00
	W. F. Lavery.....	" " " " " " " "	3044	60 00
	C. B. Frederick.....	" " " " " " " "	3045	60 00
	H. Townshend.....	" " " " " " " "	3046	55 00
	J. F. Cunningham.....	" " " " " " " "	3047	54 00
	G. S. Kellicott.....	" " " " " " " "	3048	50 00
	M. D. Jeffrey.....	" " " " " " " "	3049	50 00
	A. V. Bleiningner.....	" " " " " " " "	3050	40 00
	L. Allen.....	" " " " " " " "	3051	40 00
	M. Dresbach.....	" " " " " " " "	3052	30 00
	F. A. Fish.....	" " " " " " " "	3053	30 00
	A. H. McIntire.....	" " " " " " " "	3054	30 00
	E. L. Ball.....	" " " " " " " "	3055	30 00
	S. E. Rasor.....	" " " " " " " "	3056	30 00
	H. Judd.....	" " " " " " " "	3057	30 00
	F. J. Hale.....	" " " " " " " "	3058	30 00
	J. B. Parker.....	" " " " " " " "	3059	30 00
	B. F. Maag.....	" " " " " " " "	3060	30 00
	J. H. Vosskuehler.....	" " " " " " " "	3061	30 00
	E. L. Fullmer.....	" " " " " " " "	3062	25 00
	R. Fischer.....	" " " " " " " "	3063	25 00
	F. O. Clements.....	" " " " " " " "	3064	25 00
	O. V. Brumley.....	" " " " " " " "	3065	20 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
April 29	R. C. Purdy.....	Salary April, 1899, inst....	3066	20 00
	G. W. Rightmire.....	" " " " " " " "	3067	20 00
	E. H. Bailey.....	" " " " " " " "	3068	15 00
	F. F. D. Albery.....	" " " " " " " "	3069	15 00
	J. H. Collins.....	" " " " " " " "	3070	10 00
	D. A. Kohr.....	" " " " " " " "	3071	10 00
	R. E. McIntosh.....	" " " " " " " "	3072	10 00
	C. B. Guittard.....	" " " " " " " "	3073	50 00
	H. Gamper.....	" " " " " " " "	3074	7 50
	W. C. McCracken.....	" " " " " " " "	3075	150 00
	Geo. Rose.....	" " " " " " " "	3076	65 00
	Chas. Low.....	" " " " " " " "	3077	54 17
	W. Standley.....	" " " " " " " "	3078	50 00
	B. LeBay.....	" " " " " " " "	3079	50 00
	T. Boude.....	" " " " " " " "	3080	45 00
	W. H. Case.....	" " " " " " " "	3081	45 00
	H. Martz.....	" " " " " " " "	3082	25 00
	M. Peck.....	" " " " " " " "	3083	40 00
	F. K. Luke.....	" " " " " " " "	3084	40 00
	A. Chantler.....	" " " " " " " "	3085	40 00
	G. A. Goodspeed.....	" " " " " " " "	3086	40 00
	J. H. Brown.....	" " " " " " " "	3087	40 00
	D. D. Geren.....	" " " " " " " "	3088	40 00
	W. Whitestone.....	" " " " " " " "	3089	40 00
	H. Chantler.....	" " " " " " " "	3090	40 00
	G. C. Denny.....	" " " " " " " "	3091	40 00
	M. N. Cook.....	" " " " " " " "	3092	40 00
	T. S. Edgington.....	" " " " " " " "	3093	40 00
	T. E. Osborn.....	" " " " " " " "	3094	40 00
	J. Kelley.....	" " " " " " " "	3095	35 00
	D. C. Huddleson.....	" " " " " " " "	3096	50 00
	W. C. Mills.....	" " " " " " " "	3097	25 00
	Mrs. E. R. Hubler.....	" " " " " " " "	3098	20 00
	W. Townsel.....	" " " " " " " "	3099	25 00
	W. C. Wier.....	" " " " " " " "	3100	20 00
	J. C. Perry.....	" " " " " " " "	3101	12 50
	G. W. Elwell.....	" " " " " " " "	3102	40 00
	A. G. McCall.....	" " " " " " " "	3103	20 00
	J. Covan.....	" " " " " " " "	3104	65 00
	W. F. Hunter.....	" " " " " " " "	3105	250 00
	G. W. Knight.....	" " " " " " " "	3106	250 00
	C. H. Woodruff.....	Carpentry.....	3107	60 00
May 1	Joe Garretson.....	Salary as plumber.....	3108	33 00
	Lily Weeks.....	Services as maid.....	3109	5 00
2	T. J. Godfrey.....	Expenses trustee.....	3110	7 65
	L. B. Wing.....	" " " " " " " "	3111	10 00
6	F. J. Pavlicek.....	Salary as guide.....	3112	4 12
	R. J. Seymour.....	Guide and messenger.....	3113	5 12
	F. R. West.....	" " " " " " " "	3114	1 12
	F. C. McKinney.....	" " " " " " " "	3115	4 25
	H. Gamper.....	Labor.....	3116	5 58
	J. H. Nold.....	" " " " " " " "	3117	1 50
	K. Nurian.....	" " " " " " " "	3118	1 50
	M. J. Snow.....	Messenger.....	3119	6 25
	Am. Jersey Cattle Club	Books.....	3120	1 00
	Publishers' Weekly...	" " " " " " " "	3121	1 58

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
- May 6	Library Bureau	Magazine	3122	1 00
	E. Doddington & Co....	Lumber	3123	1 00
	Colliery Eng. Co.....	Magazine	3124	7 50
	G. M. Basford.....	"	3125	3 00
	Randall & Co.....	"	3126	1 50
	J. J. Flather Treas....	Books	3127	12 80
	G. E. Stechert.....	"	3128	192 97
	Univ. of Chic. Press...	Bot. gazette	3129	1 20
	Mrs. M. J. Kellenberger	Serv. dept. dom sci....	3130	10 00
	Writer Pub. Co.....	"The Writer"	3131	1 00
	Boston Book Co.....	Books	3132	167 75
	M. A. B. Townshend..	"	3133	44 00
	J. Penn	Cartage	3134	4 10
	Spahr & Glenn.....	Printing	3135	5 00
	C. F. Sigrist.....	Labor	3136	1 75
	L. T. Williams.....	" in library	3137	10 25
	Am. Assn. for Adv. Sci.	Books	3138	3 38
	Am. Misc. Soc.....	"	3139	22 00
	Burrows Bros. Co....	"	3140	295 70
	Am. Hist. Assn.....	"	3141	25 00
	Penn. Fuel Co.....	Coal	3142	18 04
	J. McAllister	Labor	3143	17 50
	W. Cannan	"	3144	8 75
	Col. Gas Co.....	Coke	3145	7 68
	Buffalo Dent. Mfg. Co.	Furnace	3146	8 50
	Blackw'd, Green & Co.	Iron tank and basins	3147	12 30
	Hammond & Co.....	Lab. supplies	3148	24 71
	W. H. Haskins.....	Advertising	3149	11 25
	H. Braun Sons & Co..	App. and lab. supplies....	3150	3 82
	Nitschke Bros	Ink	3151	50
	C. U. Tel. Co.....	Telephones	3152	96 95
	Col. Transfer Co.....	Drayage	3153	1 00
	C. O. Oil Co.....	Oil	3154	35 11
	Orvis & Marshall.....	Office supplies	3155	2 90
	Ind. Alkali Wks.....	Savogran	3156	18 20
	G. T. Johnson.....	Toilet paper	3157	7 50
	Mrs. E. R. Hubler....	Clerical work	3158	11 35
	Hann & Adair.....	Printing	3159	6 25
	Keuffel & Esser.....	Maduro paper	3160	3 20
	Macmillan & Co.....	Books	3161	8 71
	R. C. Osborn.....	Labor	3162	10 20
	Schoedinger, F. & Co..	Hdwe	3163	5 93
	C. Zinn	Brass castings	3164	6 25
	Jeffrey Mfg. Co.....	Varnish	3165	1 30
	H. W. Johns Mfg. Co.	Twine	3166	75
	M. C. Hunter.....	Labor	3167	5 85
	Erner & Hopkins....	Elect. supplies	3168	35 76
	W. R. Lazenby.....	Cash advanced, trees	3169	2 75
	C. H. Fleming.....	Labor	3170	12 00
	H. L. Belden.....	"	3171	7 75
	A. F. Wilcox.....	"	3172	7 65
	McClelland & Co.....	Map	3173	4 80
	L. W. Curtis.....	"	3174	5 15
	Drawing Supply Store.	Supplies	3175	1 52
	Frankenberg Bros	Trays	3176	5 60
	Albaugh N. O. Co....	Trees	3177	54 50

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
May 6	Cushman Glad. Co....	Gladioli	3178	10 00
	T. W. Whiteman.....	Plowing	3179	9 00
	M. Crawford	Plants	3180	18 00
	W. Roberts	Labor	3181	18 90
	Ohio Agr. Exp. Sta....	Potatoes	3182	35 20
	J. S. Teter.....	Labor	3183	17 50
	R. W. Funk.....	"	3184	27 82
	W. H. Anderson & Co.	Books	3185	212 50
	F. H. Tibbitts.....	Printing	3186	1 25
	E. Thompson & Co....	Books	3187	6 00
	Col. Supply Co.....	Hdwe	3188	26 88
	Cap. City Mch. Wks..	"	3189	80
	Crosby S. Gag. & V. Co	Cocks	3190	10 50
	J. G. Pulling & Co....	Valves	3191	2 00
	E. G. Bailey.....	Extra services	3192	5 63
	C. W. Weick.....	Cash adv. and tools.....	3193	6 00
	B. M. Green.....	Clerical work	3194	1 84
	O. S. Acad. of Sci....	Printing "Odonata".....	3195	30 00
	Ohio Conf. Minutes...	Advertising	3196	10 00
	Laning Ptg. Co.....	Printing	3197	23 00
	J. V. Denney.....	Exp. visit high school....	3198	19 55
	S. C. Derby.....	"	3199	15 50
	Champlin Ptg. Co....	Printing	3200	42 80
	C. P. Linhart.....	Cash adv. for trial set....	3201	3 50
	F. F. Bonnet.....	Clocks	3202	8 50
	A. G. Spaulding & Bros	Lunger	3203	2 10
	Franklin Toil. Sup. Co.	Laundry	3204	26 85
	South Bend Iron Wks.	Plow	3205	9 88
	Wellington Box Co....	Boxes	3206	3 41
	Diamond Crystal S. Co.	Salt	3207	2 25
	J. K. Farver.....	Repairs	3208	2 00
	W. H. Reid.....	Tools	3209	1 50
	F. B. Fargo & Co....	Bottles	3210	2 62
	F. S. Johnston.....	Clerical work	3211	15 45
	Glucose Sug. Ref. Co..	Meal	3212	29 25
	Hager & Graves.....	Groceries	3213	14 43
	M. C. Payne.....	Books	3214	13 25
	Alpheia Dairy Co....	Milk	3215	6 49
	J. S. Abbott & Co....	Hardware	3216	2 88
	Engelke & Bigelow...	Freight and cartage....	3217	55 17
	Murray City Coal Co..	Coal	3218	590 00
	Tallmadge Hdw. Co....	Hdwe	3219	13 62
	Borger Bros. & Co....	Repairs	3220	1 85
	Burgess Sold. Furn. Co	"	3221	75
	Col. Brass Co.....	Urinal, copper, etc.....	3222	36 35
	W. Erdman.....	Labor	3223	13 30
	G. M. Berndroth.....	"	3224	14 40
	B. B. Wells.....	"	3225	10 05
	Kimball & Mathews...	Photo supplies	3226	3 95
	P. P. Hammon.....	Freight and cartage	3227	55 17
	H. S. Adams.....	"	3228	2 56
	A. Spittal	Labor	3229	55 50
	H. Cole	Lenses	3230	14 90
	J. G. Biddle.....	Scientific instruments	3231	173 25
	West. Elec. Co.....	Elect. supplies	3232	17 82
	Eimer & Amend.....	Machine parts	3233	40 02

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount
1899. May 6	L. Fink	Moulding	3234	1 44
	Schroth & Potter	Lumber	3235	9 15
	C. H. Woodruff	Cash adv. for hdwe	3236	75
	J. M. Barringer	Lab. work	3237	1 95
	W. Morelan	Carpentry	3238	3 80
	Chic. Lab. Sup. & S. Co	Elec. supplies	3239	98 05
	Baker & Co.	Plat. ware	3240	66 65
	Kauffman Lattimer Co.	Chem. and supplies	3241	101 86
	Richards & Co.	Chem. app.	3242	27 75
	Chicago B. P. Pap. Co.	B. P. paper	3243	2 64
	Am. Aristotype Co.	Mdse	3244	7 19
	H. Goldsmith	Musical supplies	3245	5 60
	H. R. Marietta	"	3246	50
	Allyn & Bacon	Books	3247	10 50
	W. C. Mills	Cash adv. for postage	3248	84
	Col. M. & M. S. Co.	Mch. supplies	3249	25 60
	Kelton & Converse	Lumber	3250	99 56
	B. D. Potts	Hdwe	3251	8 64
	Col. Gas Co.	Gas	3252	126 83
8	F. C. Clark	Cash adv. for files	3253	2 75
	Lily Weeks	Maid	3254	5 00
10	W. I. Chamberlain	Expenses trustee	3255	12 43
	J. McL. Smith	"	3256	5 70
	R. M. Rownd, P. M.	Stamped envelopes	3257	21 40
12	Crosby Stm. G. & V. Co	Apparatus	3258	61 74
	G. Bruder	Salary as bandmaster	3259	94 00
15	T. E. Osborn	" to date	3260	20 00
	Lily Weeks	Maid	3261	5 00
	Lily Weeks	Serv. as janitress	3262	17 15
	Harrison, Olds & Co.	Legal serv. in Page will case	3263	1,000 00
22	Lily Weeks	Serv. dept. ph. train	3264	7 50
23	Mrs. M. J. Kellenberger	" dom. sci.	3265	15 00
25	T. J. Godfrey	Exp. as trustee	3266	19 75
27	L. B. Wing	"	3267	12 00
	J. H. Canfield	Salary May, 1899, inst.	3268	500 00
	Alexis Cope	"	3269	187 50
	C. E. Barnet	"	3270	65 00
	F. W. Prentiss	"	3271	33 33
	Jean Blackford	"	3272	54 17
	E. D. Cockins	"	3273	58 33
	T. F. Hunt	"	3274	250 00
	W. F. Hunter	"	3275	250 00
	G. W. Knight	"	3276	250 00
	W. A. Kellerman	"	3277	225 00
	W. McPherson	"	3278	225 00
	C. N. Brown	"	3279	225 00
	A. C. Barrows	"	3280	225 00
	Edw. Orton	"	3281	225 00
	E. A. Eggers	Salary May and June, insts.	3282	450 00
	J. R. Smith	Salary May, 1899, inst.	3283	225 00
	H. A. Weber	"	3284	225 00
	W. R. Lazenby	"	3285	225 00
	S. C. Derby	"	3286	225 00
	A. M. Bleile	"	3287	225 00
	W. T. Magruder	"	3288	225 00
	R. D. Bohannon	"	3289	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
May 27	J. P. Gordy.....	Salary May, 1899, inst.....	3290	225 00
	W. H. Scott.....	" " ".....	3291	225 00
	B. F. Thomas.....	" " ".....	3292	225 00
	J. V. Denney.....	" " ".....	3293	225 00
	B. L. Bowen.....	Salary May and June, 1899, insts.....	3294	450 00
	H. Osborn.....	Salary May, 1899, inst.....	3295	225 00
	N. W. Lord.....	" " ".....	3296	200 00
	F. A. Ray.....	" " ".....	3297	200 00
	G. B. Kauffman.....	" " ".....	3298	200 00
	F. E. Sanborn.....	" " ".....	3299	45 00
	Edw. Orton, Jr.....	" " ".....	3300	180 00
	J. N. Bradford.....	" " ".....	3301	180 00
	G. W. McCoard.....	" " ".....	3302	160 00
	C. P. Linhart.....	" " ".....	3303	160 00
	H. C. Lord.....	" " ".....	3304	160 00
	E. A. Hitchcock.....	" " ".....	3305	150 00
	D. S. White.....	" " ".....	3306	150 00
	W. D. Gibbs.....	" " ".....	3307	140 00
	P. G. Bowman.....	" " ".....	3308	140 00
	F. C. Caldwell.....	" " ".....	3309	140 00
	F. C. Clark.....	" " ".....	3310	135 00
	W. H. Page.....	" " ".....	3311	135 00
	S. A. Norton.....	" " ".....	3312	120 00
	R. I. Fulton.....	" " ".....	3313	120 00
	W. H. Siebert.....	" " ".....	3314	120 00
	O. B. Jones.....	" " ".....	3315	120 00
	J. E. Boyd.....	" " ".....	3316	120 00
	E. B. Kinkead.....	" " ".....	3317	110 00
	J. R. Taylor.....	" " ".....	3318	110 00
	C. E. Sherman.....	" " ".....	3319	100 00
	T. E. French.....	" " ".....	3320	100 00
	C. W. Mesloh.....	" " ".....	3321	100 00
	C. L. Arnold.....	" " ".....	3322	100 00
	K. D. Swartzel.....	" " ".....	3323	100 00
	A. W. Hodgman.....	" " ".....	3324	100 00
	W. A. Knight.....	" " ".....	3325	95 00
	C. W. Weick.....	" " ".....	3326	95 00
	F. W. Smyser.....	" " ".....	3327	80 00
	J. H. Schaffner.....	" " ".....	3328	90 00
	C. W. Foulk.....	" " ".....	3329	90 00
	J. A. Bownocker.....	" " ".....	3330	90 00
	C. A. Dye.....	" " ".....	3331	90 00
	W. L. Graves.....	" " ".....	3332	90 00
	J. S. Hine.....	" " ".....	3333	85 00
	F. L. Landacre.....	" " ".....	3334	85 00
	A. E. Vinson.....	" " ".....	3335	80 00
	E. M. Van Harlingen..	" " ".....	3336	80 00
	M. P. Brush.....	" " ".....	3337	80 00
	C. Wissler.....	" " ".....	3338	80 00
	C. Souther.....	" " ".....	3339	80 00
	S. M. Elliott.....	" " ".....	3340	75 00
	E. O. Randall.....	" " ".....	3341	70 00
	D. F. Pugh.....	" " ".....	3342	70 00
	E. E. Harrold.....	" " ".....	3343	70 00
	N. H. Brown.....	" " ".....	3344	70 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
May 27	E. E. Somermeier.....	Salary May, 1899, inst.....	3345	65 00
	F. Ruhlen	" "	3346	60 00
	T. K. Lewis.....	" "	3347	60 00
	A. F. Hall.....	" "	3348	60 00
	W. F. Lavery.....	" "	3349	60 00
	C. B. Frederick.....	" "	3350	60 00
	H. Townshend	" "	3351	55 00
	J. F. Cunningham.....	" "	3352	54 00
	G. S. Kellicott.....	" "	3353	50 00
	M. D. Jeffrey.....	" "	3354	50 00
	A. V. Bleininger.....	" "	3355	40 00
	L. Allen	" "	3356	40 00
	M. Dresbach	" "	3357	30 00
	F. A. Fish.....	" "	3358	30 00
	A. H. McIntire.....	" "	3359	30 00
	E. L. Ball.....	" "	3360	30 00
	S. E. Rasor.....	" "	3361	30 00
	H. Judd	" "	3362	30 00
	F. J. Hale.....	" "	3363	30 00
	J. B. Parker.....	" "	3364	30 00
	B. F. Maag.....	" "	3365	30 00
	J. H. Vosskuehler.....	" "	3366	30 00
	E. L. Fullmer.....	" "	3367	25 00
	R. Fischer	" "	3368	25 00
	F. O. Clements.....	" "	3369	25 00
	O. V. Brumley.....	" "	3370	20 00
	R. C. Purdy.....	" "	3371	20 00
	G. W. Rightmire.....	" "	3372	20 00
	E. H. Bailey.....	" "	3373	15 00
	F. F. D. Alberty.....	" "	3374	15 00
	J. H. Collins.....	" "	3375	10 00
	D. A. Kohr.....	" "	3376	10 00
	R. E. McIntosh.....	" "	3377	10 00
	C. B. Guittard.....	" "	3378	50 00
	H. Gamper	" "	3379	7 50
	W. C. McCracken.....	" "	3380	150 00
	Geo. Rose	" "	3381	65 00
	Chas. Low	" "	3382	54 17
	W. Standley	" "	3383	50 00
	B. LeBay	" "	3384	50 00
	T. Boude	" "	3385	45 00
	W. H. Case.....	" "	3386	45 00
	D. Clifford	" "	3387	45 00
	M. Peck	" "	3388	40 00
	F. K. Luke.....	" "	3389	40 00
	A. Chantler	" "	3390	40 00
	G. A. Goodspeed.....	" "	3391	40 00
	J. H. Brown.....	" "	3392	40 00
	D. D. Geren.....	" "	3393	40 00
	W. Whitestone	" "	3394	40 00
	H. Chantler	" "	2295	40 00
	G. C. Denny.....	" "	3396	40 00
	M. V. Cook.....	" "	3397	40 00
	T. S. Edgington.....	" "	3398	40 00
	J. Kelley	" "	3399	35 00
	W. C. Mills.....	" "	3400	25 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
May 27	Mrs. E. R. Hubler....	Salary May, 1899, inst	3401	20 00
	W. Townsel	" "	3402	25 00
	W. C. Wier	" "	3403	20 00
	G. W. Elwell	" "	3404	40 00
	A. G. McCall	" "	3405	20 00
	J. Covan	" "	3406	65 00
	C. H. Woodruff	" "	3407	60 00
25	F. W. Prentiss	Int. on \$70,000 6 per cent bonds	3408	2,100 00
	F. W. Prentiss	Int. on \$160,000 4½ per cent bonds	3409	3,600 00
	F. W. Prentiss	Int. on \$150,000 bonds	3410	3,375 00
	Hager & Graves	Groceries	3411	14 09
	Alpheia Dairy Co.	Milk	3412	69
	Schoedinger, F. & Co.	Ice cream freezer	3413	5 81
	Busy Bee Candy K. Co.	Nuts	3414	55
	L. A. Vance	Mdse	3415	85
	C. P. Souther	Cash advanced	3416	1 67
	Crosby St. G. & V. Co.	Apparatus	3417	60 52
	Erie Gas. Engine Co. .	Ft. on engine	3418	11 88
	Hammond & S.	Specimens	3419	7 75
	McDonald Bros	Stove grate	3420	49
	B. S. Stephenson	Clerical work	3421	5 00
	W. Morelan	Carpentry	3422	1 00
	E. Doddington & Co. .	Lumber	3423	19 55
	G. E. Stechert	Books	3424	89 69
	J. H. Nold	Labor	3425	3 30
	Tallmadge Hdw. Co. .	Hdwe	3426	4 27
	Col. M. & M. G. Co. .	"	3427	9 04
	Hart & Crouse	Grate bars	3428	3 62
	Col. Brass Co.	Float	3429	1 25
	Kelton & Converse ..	Lumber	3430	1 27
	Champlin Ptg. Co.	Printing	3431	72 50
	Stumpf & Steurer ..	Advertising	3432	7 00
27	Laning Ptg. Co.	Printing	3433	150 00
	W. B. Dana	Advertising	3434	10 00
	J. E. Baldrige	"	3435	9 00
	G. W. Knight	Expenses visit schools ..	3436	13 75
	J. R. Smith	" "	3437	23 10
	W. H. Scott	" "	3438	18 11
	A. C. Barrows	" "	3439	12 25
	H. Cole Co.	Mirror	3440	1 00
	H. Boker & Co.	Resistance wire	3441	3 36
	Queen & Co.	Scientific instruments ..	3442	142 16
	Am. Hard. Rubber Co.	Rubber	3443	14 37
	A. Spittal	Labor	3444	27 00
	G. M. Parsons	Refund of fees	3445	5 00
	B. D. Potts	Hardware	3446	12 92
	Blackw'd. Green & Co.	"	3447	5 40
	C. P. Linville	Labor	3448	1 35
	Wm. McPherson	Cash advanced	3449	6 22
	Col. Supply Co.	Hardware	3450	12 68
	Ginn & Co.	Books	3451	6 64
	B. L. Bowen	Cash advanced	3452	10 00
	Penna. Fuel Co.	Coal	3453	49 13
	McClelland & Co.	Ink	3454	25

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
May 27	Hann & Adair.....	Printing	3455	14 30
	Cherington P. & E. Co.	"	3456	5 00
	F. W. Prentiss, V. Pt..	Bonds due June 1, 1899, 6 per cent	3457	10,000 00
	Spahr & Glenn.....	Printing	3458	20 25
	K. A. Orvis.....	Office supplies	3459	3 00
	Mrs. E. R. Hubler....	Clerical work	3460	9 87
	C. U. Tel. Co.....	Telephone service	3461	45
	Mrs. F. E. Meyers....	Laundry	3462	4 00
	J. F. Ridenour.....	Office supplies	3463	1 00
	Lawrence Press Co....	Printing	3464	5 75
	G. H. Young, Tr.....	Membership dues	3465	5 00
	J. Penn.....	Carting	3466	1 50
	Cent. Ohio Paper Co..	Envelopes	3467	5 20
	Webb Sta. & Ptg. Co..	Office supplies	3468	10 65
	H. Braun Sons & Co..	Red lead	3469	32
	J. M. & W. Westwater.	Burners	3470	1 50
	J. H. Grove.....	Insurance	3471	34 00
	Standard Oil Co.....	Oil	3472	8 50
	J. McL. Smith.....	Expenses as trustee	3473	6 20
29	J. T. Mack.....	"	3474	21 35
31	Lily Weeks.....	Janitor service	3475	7 50
	R. M. Rownd, P. M....	Postage	3476	35 00
June 1	J. H. Collins.....	Salary June, 1899, inst.....	3477	10 00
3	Lily Weeks.....	Serv. dept. phy. train.....	3478	5 00
	F. F. D. Albery.....	1-10 salary June, 1899, inst.	3479	15 00
5	F. W. Smyser.....	June salary	3480	80 00
6	J. R. Taylor.....	"	3481	110 00
	C. W. Shepherd.....	Fees remitted for serv. band	3482	15 00
	R. A. Abbott.....	"	3483	15 00
	H. A. White.....	Honorarium for serv. as commandant	3484	50 00
	Col. Gas Co.....	Gas bill for May	3485	119 40
	M. P. Brush.....	June salary	3486	80 00
	O. B. Jones.....	Salary June, 1899, inst.....	3487	120 00
8	E. O. Randall.....	"	3488	70 00
	J. H. Canfield.....	"	3489	500 00
	Alexis Cope	"	3490	187 50
	C. E. Barnet.....	"	3491	65 00
	F. W. Prentiss.....	"	3492	33 33
	Jean Blackford	"	3493	54 17
	E. D. Cockins.....	"	3494	58 33
	T. F. Hunt.....	"	3495	250 00
	W. F. Hunter.....	"	3496	250 00
	G. W. Knight.....	"	3497	250 00
	W. A. Kellerman.....	"	3498	225 00
	W. McPherson	"	3499	225 00
	C. N. Brown.....	"	3500	225 00
	A. C. Barrows.....	"	3501	225 00
	Edw. Orton.....	"	3502	225 00
	J. R. Smith.....	"	3503	225 00
	H. A. Weber.....	"	3504	225 00
	W. R. Lazenby.....	"	3505	225 00
	S. C. Derby.....	"	3506	225 00
	A. M. Bleile.....	"	3507	225 00
	R. D. Bohannon.....	"	3508	225 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899. June 8	W. F. Magruder.....	Salary June, 1899, inst.....	3509	225 00
	J. P. Gordy.....	" " ".....	3510	225 00
	W. H. Scott.....	" " ".....	3511	225 00
	B. F. Thomas.....	" " ".....	3512	225 00
	J. V. Denney.....	" " ".....	3513	225 00
	H. Osborn.....	" " ".....	3514	225 00
	N. W. Lord.....	" " ".....	3515	200 00
	F. A. Ray.....	" " ".....	3516	200 00
	G. B. Kauffman.....	" " ".....	3517	200 00
	Edw. Orton, Jr.....	" " ".....	3518	180 00
	J. N. Bradford.....	" " ".....	3519	180 00
	F. E. Sanborn.....	" " ".....	3520	180 00
	G. W. McCoard.....	" " ".....	3521	160 00
	C. P. Linhart.....	" " ".....	3522	160 00
	H. C. Lord.....	" " ".....	3523	160 00
	E. A. Hitchcock.....	" " ".....	3524	150 00
	D. S. White.....	" " ".....	3525	150 00
	W. D. Gibbs.....	" " ".....	3526	140 00
	P. G. Bowman.....	" " ".....	3527	140 00
	F. C. Caldwell.....	" " ".....	3528	140 00
	F. C. Clark.....	" " ".....	3529	135 00
	W. H. Page.....	" " ".....	3530	135 00
	S. A. Norton.....	" " ".....	3531	120 00
	R. I. Fulton.....	" " ".....	3532	120 00
	W. H. Siebert.....	" " ".....	3533	120 00
	J. E. Boyd.....	" " ".....	3534	120 00
	E. B. Kinkad.....	" " ".....	3535	110 00
	C. E. Sherman.....	" " ".....	3536	100 00
	T. E. French.....	" " ".....	3537	100 00
	C. W. Mesloh.....	" " ".....	3538	100 00
	C. L. Arnold.....	" " ".....	3539	100 00
	K. D. Swartzel.....	" " ".....	3540	100 00
	A. W. Hodgman.....	" " ".....	3541	100 00
	W. A. Knight.....	" " ".....	3542	95 00
	C. W. Weick.....	" " ".....	3543	95 00
	J. H. Schaffner.....	" " ".....	3544	90 00
	C. W. Foulk.....	" " ".....	3545	90 00
	J. A. Bownocker.....	" " ".....	3546	90 00
	C. A. Dye.....	" " ".....	3547	90 00
	W. L. Graves.....	" " ".....	3548	90 00
	J. S. Hine.....	" " ".....	3549	85 00
	F. L. Landacre.....	" " ".....	3550	85 00
	A. E. Vinson.....	" " ".....	3551	80 00
	E. M. Van Harlingen..	" " ".....	3552	80 00
	C. Wissler.....	" " ".....	3553	80 00
	C. Souther.....	" " ".....	3554	80 00
	S. M. Elliott.....	" " ".....	3555	75 00
	D. F. Pugh.....	" " ".....	3556	70 00
	E. E. Harrold.....	" " ".....	3557	70 00
	N. H. Brown.....	" " ".....	3558	70 00
	E. E. Somermeier.....	" " ".....	3559	65 00
	F. Ruhlen.....	" " ".....	3560	60 00
	T. K. Lewis.....	" " ".....	3561	60 00
	A. F. Hall.....	" " ".....	3562	60 00
	W. F. Lavery.....	" " ".....	3563	60 00
	C. B. Frederick.....	" " ".....	3564	60 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
June 8	H. Townshend	Salary June, 1899, inst.	3565	55 00
	J. F. Cunningham	" "	3566	54 00
	G. S. Kellicott	" "	3567	50 00
	M. D. Jeffrey	" "	3568	50 00
	A. V. Bleininger	" "	3569	40 00
	Lucy Allen	" "	3570	40 00
	M. Dresbach	" "	3571	30 00
	F. A. Fish	" "	3572	30 00
	A. H. McIntire	" "	3573	30 00
	E. L. Ball	" "	3574	30 00
	S. E. Rasor	" "	3575	30 00
	H. Judd	" "	3576	30 00
	F. J. Hale	" "	3577	30 00
	J. B. Parker	" "	3578	30 00
	B. F. Maag	" "	3579	30 00
	J. H. Vosskuehler	" "	3580	30 00
	E. L. Fullmer	" "	3581	25 00
	R. Fischer	" "	3582	25 00
	F. O. Clements	" "	3583	25 00
	O. V. Brumley	" "	3584	20 00
	R. C. Purdy	" "	3585	20 00
	G. W. Rightmire	" "	3586	20 00
	E. H. Bailey	" "	3587	15 00
	D. A. Kohr	" "	3588	10 00
	R. E. McIntosh	" "	3589	10 00
	H. Gamper	" "	3590	7 50
	W. C. McCracken	" "	3591	150 00
	Geo. Rose	" "	3592	65 00
	Chas. Low	" "	3593	54 17
	W. Standley	" "	3594	50 00
	B. LeBay	" "	3595	50 00
	T. Boude	" "	3596	45 00
	D. Clifford	" "	3597	45 00
	M. Peck	" "	3598	40 00
	F. K. Luke	" "	3599	40 00
	A. Chantler	" "	3600	40 00
	G. A. Goodspeed	" "	3601	40 00
	J. H. Brown	" "	3602	40 00
	D. D. Geren	" "	3603	40 00
	W. Whitestine	" "	3604	40 00
	H. Chantler	" "	3605	40 00
	G. C. Denny	" "	3606	40 00
	M. N. Cook	" "	3607	40 00
	J. Kelley	" "	3608	35 00
	W. C. Mills	" "	3609	25 00
	Mrs. E. R. Hubler	" "	3610	20 00
	W. Townsel	" "	3611	25 00
	W. C. Wier	" "	3612	20 00
	A. G. McCall	" "	3613	20 00
	C. H. Woodruff	Services as carpenter	3614	60 00
8	Philip Long	Meals furn. trustees	3615	6 75
	B. S. Stephenson	Salary as quartermaster	3616	5 00
9	J. W. Smith	Lectures in Meteorology	3617	100 00
12	H. W. Hurlbut	Honorarium Bac. address	3618	35 00
	J. H. Canfield	Cash adv. for guide	3619	2 75
	R. R. Bowker	Index	3620	2 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899, June 14	Helman Taylor Co....	Books	3621	10 35
	Natl. Educat. Assn....	Membership dues	3622	2 00
	Cambridge Ent. Club..	Magazine	3623	2 00
	Boston Book Co.....	Books	3624	85 50
	Burrows Bros. Book Co	"	3625	33 78
	G. E. Stechert.....	"	3626	51 40
	L. T. Williams.....	Work in library	3627	12 83
	Am. Chem. Journal....	Books	3628	9 00
	Seraphim Blank Bk. Co	Binding	3629	144 40
	Cap. City Mch. Wks..	Belting	3630	14 56
	Ashcroft Mfg. Co.....	Planimeter	3631	12 75
	F. S. Johnston.....	Stenog. work	3632	9 05
	F. J. Hale.....	Drafting	3633	5 85
	E. H. Bailey.....	Labor	3634	13 65
	E. G. Bailey.....	"	3635	9 75
	E. Doddington & Co..	Lumber	3636	80
	W. T. Magruder.....	Cash advanced	3637	38
	Crosby S. Gag. & V. Co	Supplies	3638	14 87
	Penberthy Injector Co.	Repairs	3639	1 00
	Erner & Hopkins.....	Supplies	3640	75
	Campbell P. P. & M. Co	Counters	3641	10 40
	J. S. Bushnell.....	Ideal wheel	3642	13 00
	Howald & Conklin....	Shades	3643	16 15
	J. L. Roberts & Son... W. C. Heller & Co....	Spring	3644	2 25
		Steel boxes	3645	1 90
	Mrs. L. H. Bulkley...	Desk	3646	12 00
	M. T. Davidson.....	Valves, etc.....	3647	3 20
	A. H. Smythe.....	Cases	3648	4 00
	Col. Brass Co.....	Brass	3649	20
	Boston Book Co.....	Books	3650	50 00
	McClelland & Co.....	Neostyle paper	3651	60
	J. Carbutt	Photo supplies	3652	4 20
	Kauffman Lattimer Co.	Supplies	3653	68 26
	E. Greiner	Glassware	3654	13 05
	Am. Aristotype Co....	Supplies	3655	8 32
	S. M. Elliott.....	Cash advanced	3656	4 32
	L. F. Sater, Atty. for S.			
	F. James	Settlement in full.....	3657	200 00
	Hatton Bros	Bandages and plaster	3658	2 70
	G. W. Rightmire.....	Cash advanced	3659	4 50
	C. P. Linhart.....	"	3660	1 60
	H. Gamper	Labor	3661	12 30
	A. H. Lyon.....	"	3662	5 25
	F. E. Sanborn.....	Cash advanced	3663	19 90
	J. H. Nold.....	Labor	3664	1 20
	Alum Creek Coal Co..	Coal	3665	7 50
	E. E. Sommermeier....	Cash advanced	3666	1 50
	Penna. Fuel Co.....	Coal	3667	5 29
	F. O. Clements.....	Extra services	3668	2 62
	F. J. Jeffrey.....	Labor	3669	13 88
	K. A. Passarge.....	Tuning piano	3670	2 00
	Z. L. White.....	Dry goods	3671	1 00
	T. K. Lewis.....	Photo supplies	3672	13 68
	A. Dobbie	Dry goods	3673	7 57
	General Elec. Co.....	Elect supplies	3674	4 50
	A. Spittal	Labor	3675	45 00

STATEMENT II — Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
June 14	S. A. Stedman.....	Surveys Pike Co.....	3676	10 00
	H. Osborn	Cash advanced	3677	10 78
	R. W. Funk.....	Labor	3678	12 75
	Haussman & Dunn....	Apparatus	3679	13 38
	J. Wannamaker	Books	3680	57 92
	C. C. Ely.....	"	3681	4 00
	Spahr & Glenn.....	Printing	3682	23 50
	Penna. Fuel Co.....	Coal	3683	30 28
	Champlin Ptg. Co.....	Printing	3684	9 35
	F. R. West.....	Steroscope views	3685	12 00
	Engelke & Bigelow....	Freight and cartage.....	3686	39 36
	Murray City Coal Co..	Coal	3687	323 33
	A. McMichall	Lettering diplomas	3688	23 20
	Bee Pub. Co.....	Advertising	3689	12 50
	Col. Litho. Co.....	Printing	3690	35 00
	Col. Bank Note Co....	"	3691	127 00
	Ohio State Journal Co.	Advertising	3692	11 65
	Orvis & Marshall.....	Tpw. ribbon	3693	1 00
	Enquirer Co.....	Advertising	3694	11 65
	Blackw'd. Green & Co.	Iron	3695	50
	Jeffrey Mfg. Co.....	Wire	3696	50
	Natl. Carbon Co.....	Elect. supplies	3697	87
	R. E. McIntosh.....	Labor	3698	12 37
	J. C. Perry.....	"	3699	7 31
	F. E. Fleischer.....	"	3700	17 75
	F. S. Johnston.....	Clerical service	3701	16 20
	D. C. Beggs.....	Mats	3702	3 00
	Kilbourne & J. Mfg. Co	Hdwe	3703	10 00
	J. S. Abbott & Co.....	"	3704	36 05
	D. M. Massie.....	Expenses as trustee	3705	45 27
	E. Thompson & Co....	Books	3706	6 00
	W. H. Anderson.....	"	3707	18 00
	G. Bruder	Serv. as bandmaster	3708	22 00
	R. H. Marriott.....	Copying cadet records....	3709	3 00
	Agr. Student Pub. Co.	Advertising	3710	20 00
	Makio, 1889	"	3711	50 00
	The Lantern	"	3712	55 00
	O. T. Corson.....	"	3713	22 50
	Assemb. & C. M. Her'd	"	3714	10 00
	The Adytum of '99....	"	3715	6 00
	Col. Wire & Iron Wks.	Wire guards	3716	11 50
	Col. M. & M. Sup. Co.	Rubber	3717	2 06
	Jno. McAllister	Labor	3718	18 00
	Standard Oil Co.....	Coal oil	3719	98
	Erner & Hopkins.....	Elect. supplies	3720	14 93
	M. C. Hunter.....	Labor	3721	5 32
	P. Hayden S. Hdw. Co	Metal	3722	18 64
	Kelton & Converse....	Lumber	3723	17 24
	Haydenv'le M. & M. Co	Coke	3724	10 55
	Hampden C. Wheel Co.	Emery wheel	3725	17 50
	Brown & S. Mfg. Co..	Castings	3726	3 71
	C. W. Weick.....	Extra services	3727	5 00
	C. A. Strelinger Co....	Chisels	3728	7 20
	B. B. Wells.....	Labor	3729	9 52
	Hall Collins Hdw. Co.	Office supplies	3730	2 18
	W. Erdman	Labor	3731	15 05

STATEMENT II — Concluded.

Date.	To whom paid.	For what purpose.	No.	Amount.
1899.				
June 14	Tallmadge Hdw. Co...	Hdwe	3732	20 57
	Miller Furn. Co.....	Furniture	3733	15 00
	Hager & Graves.....	Groceries	3734	23 82
	Mrs. M. J. Kellenberger	Serv. dept. dom. sci.....	3735	17 15
	Livingston's Seed Co..	Roses	3736	2 00
	P. G. Bowman.....	Cash advanced	3737	2 53
	W. H. Zink.....	Police service	3738	4 00
	Col. Supply Co.....	Hardware	3739	18 82
	Cent. O. Paper Co....	Paper	3740	43 75
	Kimball & Mathews...	Photo supplies	3741	15 32
	Schoedinger, F. & Co..	Hdwe	3742	8 10
	Dunn, Taft & Co.....	Dry goods	3743	8 49
	Nitschke Bros	Printing	3744	6 50
	Franklin Toil. Sup. Co.	Laundry	3745	25 79
	F. C. Caldwell.....	Salary for extra services...	3746	50 00
	J. W. Gleed.....	Honorarium for com. ad....	3747	50 00
	J. T. Mack.....	Expenses as trustee	3748	29 73
	J. A. Shauck.....	Salary, 1898-9	3749	100 00
	P. G. Bowman.....	Cash advanced	3750	13 45
	F. E. Sanborn.....	"	3751	5 70
15	J. McL. Smith.....	Expenses as trustee	3752	26 00
20	F. C. McKinney.....	Guide and mess. duty....	3753	13 37
	R. J. Seymour.....	"	3754	6 37
	M. Snow	"	3755	7 50
	F. R. West.....	"	3756	2 75
	J. F. Travis.....	Services as mess. and guide.	3757	3 12
	A. E. Day.....	"	3758	2 12
	Florence L. Bell.....	Work in record office.....	3759	2 45
	R. M. Rownd, P. M....	Postage	3760	22 00
	B. B. Wells.....	Labor	3761	11 00
	L. B. Wing.....	Expenses as trustee	3762	14 00
23	D. C. Beggs Co.....	Repp	3763	7 13
	Paul Jones	Expenses as trustee	3764	20 40
	J. McL. Smith.....	"	3765	7 81
24	Joe Garretson	Salary as plumb. helper....	3766	39 00
	J. C. Covan.....	Labor	3767	22 88
26	J. C. Sullivan.....	Refund of fees	3768	30 00
28	E. H. Bailey.....	Labor	3769	2 47
	E. G. Bailey.....	"	3770	11 07
	Col. Machine Co.....	Damage to gas engine	3771	100 00
	R. W. Funk.....	Labor	3772	19 58
30	By balance			9,088 04
	Total			\$277,573 06

STATEMENT III.

In compliance with section 7 of the *Organic Act*, passed by the Legislature of Ohio, May 1, 1878, (Bates Annotated Ohio Statutes, sec. 4105-41) which requires the list of "the number of professors, officers, teachers and other employes, and the compensation of each, to be annually reported," I submit the following:

Employees.	Position.	Salary.
James H. Canfield.....	President	\$6,000 00
W. H. Scott	Professor of Philosophy	2,250 00
Edward Orton	geology	2,250 00
W. R. Lazenby.....	" horticulture and forestry...	2,250 00
Josiah R. Smith.....	" Greek language & literature	2,500 00
Henry A. Weber.....	" agricultural chemistry.....	2,250 00
Benj. F. Thomas.....	" physics	2,500 00
Geo. W. Knight.....	" history and political science	2,250 00
R. Daniel Bohannon.....	" mathematics and astronomy	2,250 00
Herbert Osborne.....	" zoology and entomology...	2,250 00
Ernst A. Eggers.....	" German language, literature	2,250 00
C. Newton Brown.....	" civil engineering.....	2,250 00
Albert M. Bleile.....	" anatomy and physiology...	2,250 00
Wm. A. Kellerman.....	" botany	2,250 00
Thos. F. Hunt.....	" agriculture	2,250 00
Samuel C. Derby.....	" Latin language, literature..	2,250 00
Nathaniel W. Lord.....	" metallurgy and mineralogy	2,000 00
Frank E. Sanborn.....	Director of industrial department.....	1,800 00
Albert C. Barrows.....	Professor of English literature.....	2,250 00
Joseph V. Denney.....	" rhetoric and Eng'sh lang'ge	2,250 00
Benj. L. Bowen.....	" Romance languages	2,250 00
W. F. Hunter.....	Dean of law faculty.....	2,250 00
Geo. B. Kauffman.....	Professor of pharmacy.....	2,000 00
J. P. Gordy	" pedagogy	2,250 00
Robt. I. Fulton.....	" elocution and oratory.....	1,200 00
Wm. T. Magruder.....	" mechanical engineering....	2,250 00
Edward Orton, Jr.....	Director school of ceramics.....	1,800 00
Frank A. Ray.....	Associate professor mining engineering..	2,000 00
Jos. N. Bradford.....	" " drawing	1,800 00
Wm. McPherson.....	" " chemistry	2,250 00
Geo. W. McCoard.....	Assistant professor mathematics.....	1,600 00
Sidney A. Norton.....	Lecturer in general chemistry.....	1,200 00
F. C. Caldwell.....	Associate professor physics.....	1,700 00
Henry C. Lord.....	Director observatory	1,600 00
C. E. Sherman	Assistant professor civil engineering....	1,000 00
E. A. Hitchcock.....	Associate professor mech'l engineering..	1,500 00
W. D. Gibbs	Assistant " agriculture	1,400 00
C. W. Mesloh.....	" " German	1,000 00
David S. White.....	Professor veterinary medicine	1,500 00
Thos. E. French.....	Assistant in drawing	1,000 00
F. C. Clark.....	" professor of economics.....	1,350 00
Olive B. Jones.....	Librarian	1,200 00
Chas. W. Weick.....	Foreman carpenter shop.....	950 00
William A. Knight.....	" machine shops	950 00
C. C. Steffel.....	" forge room.....	380 00
F. W. Smyser.....	"	480 00
J. E. Boyd.....	Assistant professor physics	1,200 00
Karl D. Swartzel.....	" mathematics	1,000 00
W. L. Graves.....	" rhetoric	900 00
Jas. S. Hine.....	Assistant in entomology	850 00
A. E. Vinson.....	" agricultural chemistry.....	800 00
E. M. Van Harlingen.....	Assistant professor anatomy and physi- ology	800 00

STATEMENT III — Continued.

Employees.	Position.	Salary.
H. J. Noyes.....	Assistant professor dairy husbandry.....	500 00
E. E. Sommermeier.....	" in metallurgy and mineralogy..	650 00
Arthur W. Hodgman.....	" professor classic languages....	1,000 00
Frank Ruhlen.....	" in agriculture	720 00
J. A. Bownocker.....	" professor geology	900 00
W. H. Siebert.....	" professor history	1,200 00
C. L. Arnold.....	" in mathematics	1,000 00
C. A. Dye.....	" professor pharmacy	900 00
W. F. Lavery.....	" in veterinary medicine	600 00
E. E. Harold.....	Storekeeper	700 00
C. B. Frederick.....	Fellow in veterinary medicine	600 00
O. V. Brumley.....	"	200 00
Thos. K. Lewis.....	Assistant in drawing	600 00
M. P. Brush.....	" French	800 00
F. L. Landacre.....	" zoology	850 00
A. V. Bleininger.....	" ceramics	400 00
C. W. Foulk.....	" analytical chemistry	900 00
Harriet Townshend.....	" library	550 00
N. H. Brown.....	" physics	700 00
J. H. Schaffner.....	" botany	900 00
Horace Judd.....	Fellow in mechanical engineering.....	300 00
F. T. Hale.....	"	300 00
F. A. Fish.....	Fellow and laboratory assistant in electrical engineering	300 00
Robert Fischer.....	Fellow in chemistry	250 00
F. O. Clements.....	"	250 00
Maud Jeffreys.....	Assistant in library	500 00
Gertrude Kellicott.....	"	500 00
C. B. Guittard.....	"	350 00
Lucy Allen.....	"	400 00
F. K. Luke.....	Florist	480 00
C. P. Linhart.....	Director physical training	1,600 00
Perla G. Bowman.....	Associate professor domestic science....	1,400 00
Sarah S. James.....	Assistant in domestic science.....	360 00
Cornelia P. Souther.....	"	320 00
J. R. Taylor.....	Assistant professor rhetoric	1,100 00
Clark Wissler.....	" in philosophy and pedagogy...	800 00
Stella Elliott.....	Associate director physical training....	750 00
M. Dresbach.....	Fellow in anatomy and physiology.....	300 00
Emma L. Ball.....	" mathematics	300 00
S. E. Rasor.....	" mathematics	300 00
A. H. McIntire.....	" industrial arts	300 00
J. F. Cunningham.....	Assistant in horticulture and forestry...	540 00
W. H. Page.....	Professor of law	1,350 00
E. B. Kinkead.....	"	1,100 00
D. F. Pugh.....	"	700 00
E. O. Randall.....	"	700 00
G. W. Knight.....	"	250 00
F. F. D. Alberry.....	Lecturer on law	150 00
J. H. Collins.....	"	100 00
John A. Shauck.....	"	100 00
George W. Rightmire.....	Assistant in American history.....	200 00
Don C. Huddleson.....	" Gynasium	400 00
J. H. Vosskuehler.....	" Drawing	300 00
Oscar Erf.....	Student assistant in butter making.....	60 00
Marion Innes.....	" dairying	60 00
John B. Parker.....	Fellow in rhetoric	300 00
Benjamin F. Maag.....	Emerson McMillin fellow in astronomy..	300 00
E. L. Fullmer.....	Fellow in botany	250 00
Alexis Cope.....	Secretary	2,250 00

STATEMENT III — Concluded.

Employees.	Position.	Salary.
C. E. Barnet.....	Accountant	780 00
F. W. Prentiss.....	Treasurer	400 00
Jean Blackford.....	Executive clerk	650 00
Edith D. Cockins.....	Registrar	700 00
W. C. McCracken.....	Chief engineer	1,500 00
Chas. Low.....	Assistant engineer	650 00
Wm. Standley.....	"	600 00
Geo. R. Rose.....	Plumber	780 00
H. Martz.....	Watchman	540 00
James Kelley.....	Lawnkeeper	420 00
Mrs. E. R. Hubler.....	Telephone attendant	210 00
Benj. LeBay.....	Steam fitter	600 00
Wash. Townsel.....	Janitor	300 00
G. A. Goodspeed.....	"	480 00
Henry Chantler.....	"	480 00
Arthur Chantler.....	"	480 00
J. H. Brown.....	"	480 00
M. N. Cook.....	"	480 00
D. D. Geren.....	"	480 00
Wm. Whitestine.....	"	480 00
G. C. Denny.....	"	480 00
E. H. Bailey.....	"	150 00
R. E. McIntosh.....	"	100 00
H. Gamper.....	"	75 00
Wm. Weir.....	Elevator attendant	200 00
W. C. Mills.....	Curator of the archæological collection...	300 00
A. G. McCall.....	Janitor	240 00
James Stainbrooke.....	First fireman	450 00
Thos. Boude.....	Second fireman	360 00
Marion Peck.....	Helper	400 00

COLUMBUS, OHIO, September, 21, 1899.

To the Board of Trustees of the Ohio State University:

The undersigned, the Finance Committee, have, in obedience to your instructions, examined the accounts and vouchers of F. W. Prentiss, the Treasurer of the University, for the period from July 1, 1898, to June 30, 1899, and carefully compared them with the vouchers in possession of the Secretary, and hereby certify that the report of the Treasurer submitted to the Board for the period named, which is the last fiscal year, is correct.

D. M. MASSIE,

PAUL JONES,

T. J. GODFREY,

Finance Committee.

Report of Treasurer of the Ohio State University to the Secretary of Agriculture and the Secretary of the Interior, of amount received under act of Congress of August 30, 1890, in aid of Colleges of Agriculture and the Mechanic Arts, and of the disbursements thereof, to and including June 30, 1899.

Balance on hand July 1, 1898	\$267 42
Date of receipt of installment for 1898-99, July 18, 1898....Amount..	24,000 00
Total available for year ended June 30, 1899.....	\$24,267 42
Disbursements thereof for and during the year ended June 30, 1899:	
Agriculture, as per Schedule A.....	5,218 51
Mechanic Arts, as per Schedule B.....	8,062 83
English Language, as per Schedule C.....	754 29
Mathematical Science, as per Schedule D.....	1,555 71
Natural or Physical Science, as per Schedule E.....	7,976 33
Economic Science, as per Schedule F.....	662 44
Total expended during year.....	\$24,230 11
Balance remaining unexpended July 1, 1899.....	37 31

I hereby certify that the above account is correct and true, and, together with the schedules hereunto attached, truly represents the details of expenditures for the period and by the institution named, and that said expenditures were applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their application in the industries of life and to the facilities for such instruction.

F. W. PRENTISS,
Treasurer.

SCHEDULE A.

Disbursements for instruction in Agriculture and for facilities for such instruction, during the year ended June 30, 1899.

Name of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
Thos. F. Hunt, Professor.....	Agriculture	\$250 00
W. D. Gibbs, Asso. Professor...	"	140 00
Frank Ruhlen, Assistant	"	60 00
H. A. Weber, Professor.....	Agricultural chemistry.....	225 00
A. E. Vinson, Assistant.....	"	80 00
W. R. Lazenby, Professor.....	Horticulture	225 00
J. F. Cunningham, Assistant....	"	54 00
D. S. White, Professor.....	Veterinary Medicine	150 00
W. F. Lavery, Assistant.....	"	60 00
C. B. Frederick, Assistant.....	"	60 00
O. V. Brumley, Fellow.....	"	20 00
H. P. Miller, Lecturer.....	Agriculture	20 00

SCHEDULE A — Concluded.

	Amount.
II. For facilities as follows:	
Text-books and reference books.....	\$159 21
Department of Agriculture.	
Seeds, \$18.75; model of barn, \$6.00; tools and hardware, \$86.17; threshing, \$99.70; live stock, \$140.00; harness, \$48.00; feed, \$573.98; farm implements, \$177.28; scales, \$88.98; machinery, \$115.24; blacksmithing, \$52.70; apparatus, \$53.03.....	1,459 83
Dairy Laboratory.	
Ice, \$5.05; milk, \$277.72; dairy implements, \$144.37; dairy supplies, \$112.53; dairy machinery, \$177...71; separator, \$300.00; hollow-ware, \$64.56; boiler, \$430.00; ice machine, \$324.79; Sterilizer, \$24.00; Shaker, \$25.00.....	1,885 73
Department of Agricultural Chemistry.	
Chemical apparatus and supplies, \$57.32; steam table, \$25.00....	82 32
Department of Veterinary Medicine.	
Surgical instruments, \$52.82; skeletons, \$63.75; prints of animals, \$3.12; mattress, \$23.55; dissecting material, \$27.81.....	171 05
Department of Horticulture.	
Laundry tub, \$10.43; hardware and tools, \$11.90; microscope, \$94.04	116 37
Total	\$5,218 51

SCHEDULE B.

Disbursements for instruction in Mechanic Arts and for facilities for such instruction, during the year ended June 30, 1899.

Name of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
Edw. Orton, Jr., Director.....	Ceramics	\$180 00
C. N. Brown, Professor.....	Civil engineering.....	225 00
C. C. Sherman, Assistant.....	"	100 00
J. N. Bradford, Asso. Professor..	Drawing	180 00
T. E. French, Asst. Professor..	"	100 00
T. K. Lewis, Assistant.....	"	60 00
J. H. Vosskuehler, Fellow.....	"	30 00
F. C. Caldwell, Asso. Professor..	Electrical engineering.....	140 00
F. A. Fish, Fellow.....	"	30 00
F. E. Sanborn, Asso. Professor..	Industrial arts	225 00
W. A. Knight, F'm'n Mch. Shop	"	95 00
C. W. Weick, F'm'n Carp. Shop.	"	95 00
Chas. Sleffel Foreman.....	"	95 00
A. H. McIntire, Fellow.....	"	30 00
W. T. Magruder, Professor.....	Mechanical engineering.....	225 00
E. A. Hitchcock, Asst. Professor	"	150 00
A. F. Hall, Machinist.....	"	60 00
F. J. Hale, Fellow.....	"	30 00
H. Judd, Fellow.....	"	30 00
N. W. Lord, Professor.....	Metallurgy and mineralogy...	200 00
E. E. Sommermeier, Assistant....	"	65 00
F. A. Ray, Asso. Professor.....	Mine engineering.....	200 00
G. B. Kauffman, Professor.....	Pharmacy	200 00
C. A. Dye, Asst. Professor.....	"	90 00

SCHEDULE B — Concluded.

	Amount.
II. Facilities as follows:	
Text-books and reference books	\$598 68
Department of Ceramics.	
Machinery and apparatus, \$406.05; clays, cements, etc., \$46.46; hardware and castings, \$63.00; canvas, \$9.00; coal and coke, \$97.94	622 45
Department of Civil Engineering.	
Transits, \$232.25; electric lamp, \$5.40.....	237 65
Department of Drawing.	
Photo supplies, \$104.76; optical parts, \$17.75; photo apparatus and instruments, \$109.89	232 40
Department of Electrical Engineering.	
Machinery and repairs, \$49.56; battery plates, \$47.90; voltmeter, \$87.50; ammeter, \$11.25	196 21
Department of Industrial Arts.	
Machinery and apparatus, \$107.65; shop supplies, \$95.13; iron and steel, \$161.76; lumber, \$307.91; hardware and tools, \$143.40	815 85
Department of Mechanical Engineering.	
Machinery and repairs, \$390.21; econometer, \$65.00; viscosimeter, \$12.00; lathe, \$295 20; tools and hardware, \$160.70; machine parts and castings, \$112.46; rope, \$13.29; condenser, \$400.00; frames, \$1.75; calorimeter, \$32.00; electric supplies, \$1.76; sep- arators, \$28.00; pulleys, \$17.14; lumber, \$9.10; oil, \$27.81, wire cloth, \$6.40; iron and steel, \$45.02; scales, \$28.17; hang- ers, \$18.29; counter, \$16.00; indicator, \$74.26.....	1,754 56
School of Mines.	
Gas, \$6.80; apparatus, \$33.75; coke, \$16.00; fire clay, \$35.05; assay furnace, \$246.05; photographs of mines, \$27.53.....	365 18
Department of Pharmacy.	
Laboratory desks	165 00
Common to Above Departments.	
Apparatus, etc.....	239 85
Total	\$8,062 83

SCHEDULE C.

Disbursements for instruction in English Language and for facilities for such instruction, during the year ended June 30, 1899.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
A. C. Barrows, Professor.....	English literature	\$225 00
J. V. Denney, Professor.....	" language & rhetoric	225 00
J. R. Taylor, Asst. Professor....	" " "	110 00
W. L. Graves, Asst. Professor...	" " "	90 00
J. B. Parker, Fellow.....	" " "	30 00

SCHEDULE C—Concluded.

	Amount.
II. For facilities as follows:	
Text-books and reference books	\$74 29
Total	\$754 29

SCHEDULE D.

Disbursements for instruction in Mathematical Science and for facilities for such instruction, during the year ended June 30, 1899.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
R. D. Bohannon, Professor.....	Mathematics	225 00
G. W. McCoard, Asso. Prof.....	"	160 00
C. L. Arnold, Asst. Professor...	"	100 00
K. D. Swartzel, Asst. Professor..	"	100 00
E. L. Ball, Fellow.....	"	30 00
S. E. Rasor, Fellow.....	"	30 00
H. C. Lord, Director Observatory	" and astronomy...	160 00

SCHEDULE D — Concluded.

	Amount.
II. For facilities as follows:	
Text-books and reference books	721 05
Department of Astronomy.	
Geisler tubes, \$6.00; thermometer, \$9.25; repairing instruments, \$10.75; hardware and tools, \$3.66	29 66
Total	\$1,555 71

SCHEDULE E.

Disbursements for instruction in Natural or Physical Science and for facilities for such instruction, during the year ended June 30, 1899.

Names of instructors.	Subjects taught for which paid from "Morril Fund."	Amount.
I. For salaries of instructors:		
A. M. Bleile, Professor.....	Anatomy and physiology.....	\$225 00
E. M. Van Harlingen, Assistant..	" "	80 00
M. Dresbach, Fellow.....	" "	30 00
W. A. Kellerman, Professor....	Botany	225 00
J. H. Schaffner, Assistant	"	90 00
E. L. Fullmer, Fellow.....	"	25 00
Wm. McPherson, Professor....	Chemistry	225 00
L. A. Norton, Lecturer.....	"	120 00
C. W. Foulk, Assistant.....	"	90 00
Robert Fischer, Fellow.....	"	25 00
F. O. Clements, Fellow.....	"	25 00
Edw. Orton, Professor.....	Geology	225 00
J. A. Bownocker, Assistant.....	"	90 00
B. F. Thomas, Professor.....	Physics	225 00
J. E. Boyd, Assistant.....	"	120 00
N. H. Brown, Assistant.....	"	70 00
H. Osborne, Professor.....	Zoology and entomology....	225 00
J. S. Hine, Assistant.....	" "	85 00
F. L. Landacre, Assistant.....	" "	85 00

SCHEDULE E — Concluded.

	Amount.
II. For facilities as follows:	
Text-books and reference books	\$542 67
Department of Anatomy and Physiology.	
Optical parts, \$45.06; laboratory supplies, \$3.55; microscope, \$120.80; model of eye, \$19.00; apparatus, \$1.15.....	189 56
Department of Botany.	
Lichens, \$3.10; labels, \$25.54; hardware and tools, \$51.84; herbarium paper, \$57.60; laboratory supplies, \$8.00; optical parts, \$6.15; mounting specimens, \$70.05; microscope, \$285.77; plants, \$6.35; specimen cards, \$9.50.....	523 90
Department of Chemistry.	
Apparatus and supplies, \$244.71; laboratory desks, \$427.38; steam table, \$30.00; chemical glassware, \$807.79.....	1,509 88
Department of Geology.	
Fossils, \$32.70; specimens, \$150.25.....	182 95
Department of Physics.	
Instruments, \$52.00; apparatus, \$118.45; electric supplies, \$149.78	320 23
Department of Zoology and Entomology.	
Hardware and tools, \$8.35; laboratory supplies, \$54.54; microscope, \$232.46; drugs and chemicals, \$29.75; specimens, \$18.50; instruments, \$3.00; specimen boxes, \$45.00; mounting hippopotamus, \$140.00	531 60
Common to Above Departments.	
Chemicals and apparatus	1,890 54
Total	\$7,976 33

SCHEDULE F.

Disbursements for instruction in Economic Science and for facilities for such instruction, during the year ended June 30, 1899.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
G. W. Knight, Professor.....	Americ'n history and political science	\$250 00
F. C. Clark, Asso. Professor.....	Economics and sociology....	135 00
W. H. Siebert, Asso. Professor..	European history	120 00
G. W. Rightmire, Fellow.....	American history	20 00

SCHEDULE F—Concluded.

	Amount.
II.. For facilities as follows:	
Text-books and reference books	137 44
Total	\$662 44

OHIO STATE UNIVERSITY

NINTH
TWENTY-EIGHTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

TO THE

GOVERNOR OF OHIO

FOR THE

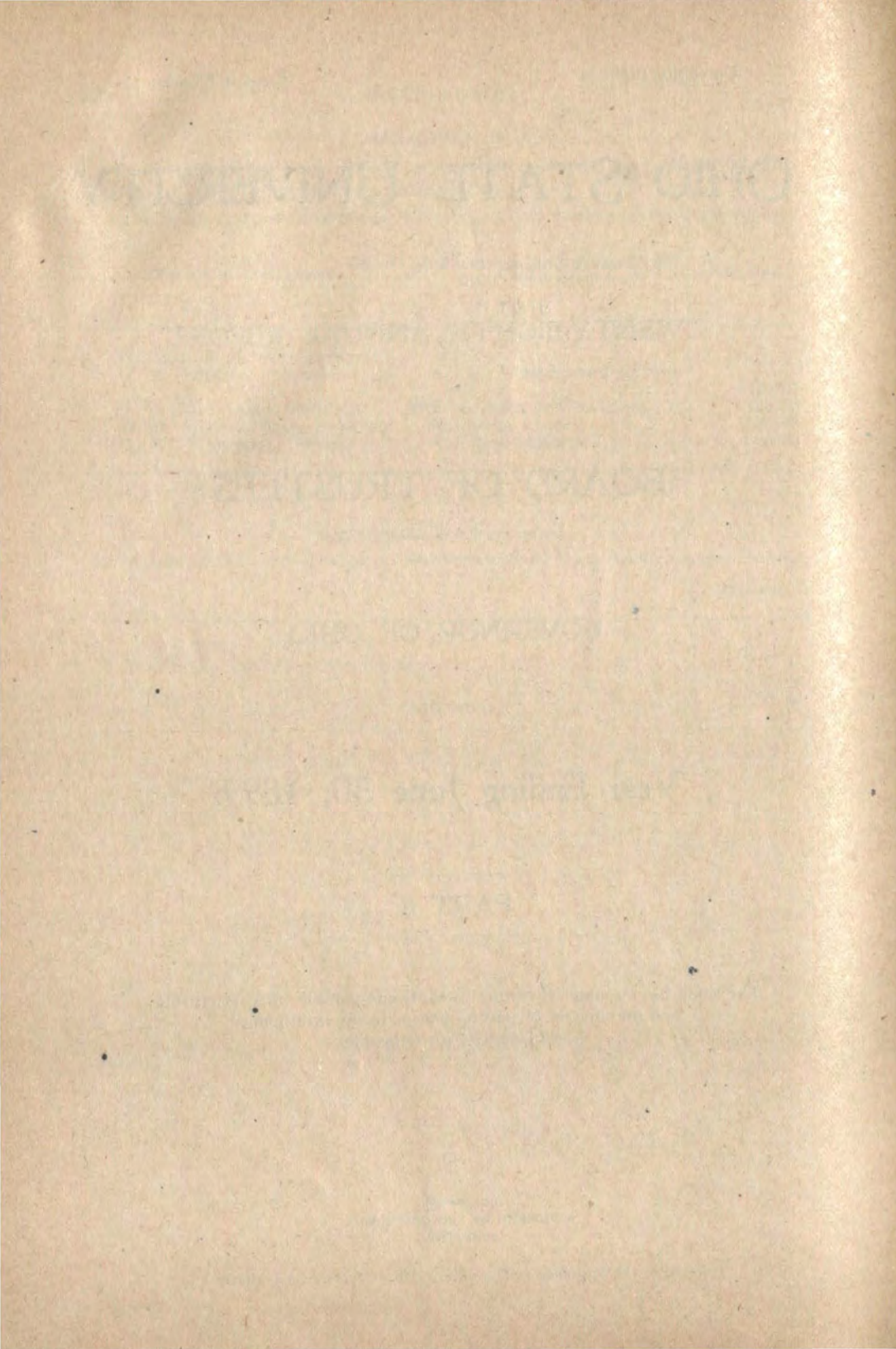
Year Ending June 30, 1899.

PART II.

The State has no material resources at all comparable with its citizens,
and no hope of perpetuity except in the intelligence
and integrity of its people.

COLUMBUS
PUBLISHED BY THE UNIVERSITY
JUNE, 1899.

Entered at the Postoffice at Columbus, Ohio, as Second-class Matter.



CALENDAR

1899

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 ³⁰	24 ³¹	25	26	27	28	29

AUGUST

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20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

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OCTOBER

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29	30	31				

NOVEMBER

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26	27	28	29	30		

DECEMBER

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24 ³¹	25	26	27	28	29	30

1900

JANUARY

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28	29	30	31			

FEBRUARY

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25	26	27	28	29	30	31

APRIL

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29	30					

MAY

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JUNE

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24	25	26	27	28	29	30

DAYS AND DATES

1899

Thanksgiving Recess	}	Thursday,	November 30.
First term ends		Friday,	December 1.
Christmas Vacation.		Wednesday,	December 20.

1900

Second Term begins.....		Wednesday,	January 3.
First Semester (College of Arts, Philosophy and Science) ends.....		Friday,	February 2.
Second Semester (College of Arts, Philosophy and Science) begins.....		Monday,	February 5.
University Day		Thursday,	February 22.
Second Term ends.....		Friday,	March 23.
Third Term begins.....		Monday,	March 26.
Spring Recess.			
Meeting of Trustees.		Wednesday,	April 4.
High School Day		Friday,	May 18.
Senior Vacation begins.....		Saturday,	May 19.
Field Day—Athletic Association		Saturday,	May 19.
Competitive Drill, Cadet Battalion....		Saturday,	May 26.
Memorial Day.....		Wednesday,	May 30.
Final Examinations (all Colleges)	}	Monday to	June 4.
		Friday,	June 8.
Baccalaureate Sermon.....		Sunday,	June 10.
Entrance Examinations (8 A. M.).....	}	Monday,	June 11.
		Tuesday,	June 12.
Class Day.....		Monday,	June 11.
Meeting of Trustees.....		Tuesday,	June 12.
Alumni Day.....		Tuesday,	June 12.
COMMENCEMENT		Wednesday,	June 13.
Summer Vacation.			
Entrance Examinations (8 A. M.)		Monday,	September 17
Registration		Tuesday,	September 18
Lectures and Class-work begin (all Colleges)		Wednesday,	September 19.
Meeting of Trustee s.		Wednesday,	September 26

BOARD OF TRUSTEES

1898-1899

		Term Expires.
WM. I. CHAMBERLAIN.....	Hudson.....	May 13, 1899.
DAVID M. MASSIE.....	Chillicothe.....	" 1900.
JOHN T. MACK.....	Sandusky.....	" 1901.
LUCIUS B. WING.....	Newark.....	" 1902.
THOMAS J. GODFREY.....	Celina.....	" 1903.
J. McLAIN SMITH.....	Dayton.....	" 1904.
PAUL JONES.....	Columbus.....	" 1905.
OSCAR T. CORSON.....	Columbus.....	" 1906.

OFFICERS OF THE BOARD

* WM. I. CHAMBERLAIN.....	President.
J. McLAIN SMITH.....	Vice President.
ALEXIS COPE.....	Secretary.
FRED W. PRENTISS.....	Treasurer.

COMMITTEES OF THE BOARD

EXECUTIVE	FARM	FINANCE
L. B. WING	J. McLAIN SMITH	D. M. MASSIE
T. J. GODFREY	L. B. WING	T. J. GODFREY
PAUL JONES	JOHN T. MACK	J. McLAIN SMITH

FACULTY AND COURSES OF STUDY

THOMAS J. GODFREY	WM. I. CHAMBERLAIN	JOHN T. MACK
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* Term expired May 13th.

THE FACULTIES

Members of the Faculties, and Other Instructors

1898-1899

JAMES HULME CANFIELD.....University Grounds

President

A. B., Williams, 1868; A. M., Williams, 1877; LL. D., Williams, 1898. Railroad construction, 1868-1872; Practicing Attorney, 1872-'77; Superintendent of Schools, St. Joseph, Michigan, 1874-'77; Professor of History and English Literature, State University of Kansas, 1877-'84; Professor of History and Political Science, State University of Kansas, 1884-'87; Professor of American History and Civics, State University of Kansas, 1887-'91; Chancellor of the University of Nebraska, 1891-'95; present position since 1895.

EDWARD ORTON.....100 Twentieth street

Professor of Geology, and State Geologist

A. B., Hamilton, 1848; Ph. D., Hamilton, 1875; LL. D., Ohio State University, 1881. Student of Theology, Lane Seminary, 1849; Student at Lawrence Scientific School, Harvard University, 1852; Student, Andover, 1854; Professor of Natural Science, State Normal School, Albany, N. Y., 1856-'59; Principal, Chester Academy, N. Y., 1859-'65; Professor of Natural History, Antioch, 1865-'72; President of Antioch, 1872-'78; President of the Ohio State University, 1873-'81; State Geologist, 1890; present position since 1881.

WILLIAM HENRY SCOTT.....131 Fifteenth avenue

Professor of Philosophy

A. B., Ohio University, 1862; M. A., Ohio University, 1865; LL. D., Ohio University and Ohio Wesleyan, 1884. Superintendent of Public Schools, Athens, Ohio, 1862-'64; Principal of the Preparatory Department of Ohio University, 1864-'65; Pastor of Main Street M. E. Church, Chillicothe, Ohio, 1865-'67; Pastor of Town Street M. E. Church, Columbus, Ohio, 1867-'69; Professor of Greek, Ohio University, 1869-'72; President and Professor of Philosophy, Ohio University, 1872-'83; President and Professor of Philosophy, Ohio State University, 1883-'95; present position since 1895.

SIDNEY AUGUSTUS NORTON.....363 East Town street

Lecturer in Chemistry

A. B., Union, 1856; A. M., Union, 1859; M. D., Miami Medical College, 1867; Ph. D., Kenyon, 1878; LL. D., Wooster, 1881. Student at Bonn, Leipsiz, Heidelberg; Teacher, Poughkeepsie Collegiate Academy, 1856; Tutor, Union, 1857; Principal Hamilton (Ohio) High School, 1858; Instructor of Natural Science, Cleveland High Schools, 1859-'66; Teacher of Natural Science, Mt. Auburn, 1866-'72; Professor of Chemistry, Miami, 1867-'72; Acting Professor of Physics, Union, 1872-'73; Professor of Chemistry, Ohio State University, 1873-'95; present position since 1895.

NATHANIEL WRIGHT LORD.....338 West Eighth avenue

Professor of Mineralogy and Metallurgy, Director of the School of Mines, and Dean of the College of Engineering

E. M., Columbia, 1876. Present position since 1878.

SAMUEL CARROLL DERBY.....93 Fifteenth avenue

Professor of Latin

A. B., Harvard, 1866; A. M., Harvard, 1869 (in course), 1877 (by examination). Principal of Schools, Ilion, N. Y., 1866-'67; Assistant in Dixwell's Classical School, Boston, 1867-'70; Professor of Language, Antioch, 1870-'81; President, Antioch, 1877-'81; Student, Latin and History, Harvard, 1876-'77; Student, Latin and History, Johns Hopkins, 1880-'81; Student, Latin, Harvard, 1892-'93; present position since 1881.

WILLIAM RANE LAZENBY.....307 West Sixth avenue

Professor of Horticulture and Forestry

B. Agr., Cornell, 1874; M. Agr., Iowa Agricultural College, 1887. Instructor Horticulture and Botany, Cornell, 1874-'77; Assistant Professor of Horticulture, Cornell, 1877-'81; Lecturer, N. Y. State Grange, 1874-'81; Director Ohio U. S. Experiment Station, 1882-'84; Professor of Botany and Horticulture, Ohio State University, 1881-'92; present position since 1892.

JOSIAH RENICK SMITH.....950 Madison avenue

Professor of the Greek Language and Literature

A. B., Amherst, 1871; A. M., Amherst, 1883. Principal, Mound Street School, Columbus, 1871-'73; Teacher, Columbus High School, 1873-'76; Assistant Professor of Ancient Languages, Ohio State University, 1876-'81; Student at Leipsic, 1881-'83; present position since 1883.

HENRY ADAM WEBER.....1342 Forsythe avenue

Professor of Agricultural Chemistry

Graduate of Polytechnic School, Kaiserslautern, 1866; Student, Chemistry under Von Liebig and Reischner, and of Mineralogy under Von Kobell, Munich, 1866-'68; Ph. D., Ohio State University, 1879; Ohio Geological Survey, Chemical Department, 1869-'74; Professor of General Chemistry and Mineralogy, Illinois State University, 1874-'82; present position since 1884.

BENJAMIN FRANKLIN THOMAS.....University Grounds

Professor of Physics, and State Sealer of Weights and Measures

B. Sc., Ripon, 1874; M. Sc., Ripon, 1877; Ph. D., Stevens Institute, 1880. Instructor in Mathematics and Physics, Carleton College, Northfield, Minnesota, 1876-'79; Professor of Physics, University of Missouri, 1880-'85; engaged in electrical test work at the International Electrical Exhibition at Philadelphia, 1884, and at the World's Columbian Exhibition, Chicago, 1893; present position since 1885.

GEORGE WELLS KNIGHT.....University Grounds

Professor of American History and Political Science and Constitutional Law; and in charge of European History

A. B., University of Michigan, 1878; A. M., University of Michigan, 1883; Ph. D., University of Michigan, 1884. Student, Law, University of Michigan, 1878-'79; Principal of High School, Lansing, Michigan, 1879-'81; Student, History and Political Science, University of Michigan, 1882-'84; Instructor in History, Ann Arbor High School, 1883-'85; Professor of History and English Literature, Ohio State University, 1885-'87; Student at Universities of Halle, Berlin, and Freiburg, 1889-'90; present position since 1887.

ROSSER DANIEL BOHANNAN.....Sixteenth and Indianola avenues

Professor of Mathematics

B. Sc., C. E., E. M., University of Virginia, 1876. Student of Mathematics and Physics, Cambridge, England, 1880-'82; Göttingen, 1882-'83; Teacher of Mathematics and Latin, Suffolk Collegiate Institute, Virginia, 1876-'77; Teacher of Mathematics and English, New York Latin School, New York City, 1877-'78; Professor of Mathematics and Natural Science, Emory and Henry College, 1878-'80; Acting Professor of Mathematics, University of Virginia, 1883-'84; Assistant Professor in Mathematics and Physics, University of Virginia, 1884-'87; Professor of Mathematics and Astronomy, Ohio State University, 1887-'95; present position since 1895.

C. NEWTON BROWN.....1343 Forsythe avenue

Professor of Civil Engineering

C. E., Miami, 1886. Resident Engineer of the Ironton Extension of the Pittsburgh, Cincinnati, Chicago & St. Louis R. R., 1881; Ohio Geological Survey, 1882; Assistant in Mathematics and Civil Engineering, Ohio State University, 1883-'85; Associate Professor of Civil Engineering, Ohio State University, 1885-'90; present position since 1890.

ERNST AUGUST EGGERS.....190 West Eleventh avenue, University Grounds

Professor of Germanic Languages and Literatures

Student in Gymnasium at Hanover, the Sorbonne, College de France; at Michigan State Normal School. Instructor in German in the High Schools of Wisconsin and Michigan for ten years; Assistant in German, Ohio State University, 1886-'88; Assistant Professor of German, same institution, 1888-'90; present position since 1890.

ALBERT MARTIN BLEILE.....218 King avenue

Professor of Anatomy and Physiology

M. D., Starling Medical College, 1876. Student, Vienna, Chemistry and Physiology, 1876-'77; Student, Physiology, Leipsic, 1877-'78; Student Anatomy and Histology, Paris, 1878-'79; Lecturer on Experimental Physiology, Starling Medical College, 1879; Professor of Physiology, Starling Medical College, 1884; present position since 1891.

WILLIAM ASHBROOK KELLERMAN.....175 Eleventh avenue

Professor of Botany

B. Sc., Cornell, 1874; Ph. D., Zurich, 1881. Professor of Natural Science, Wisconsin State Normal School, 1874-'79; Professor of Botany and Horticulture, Kentucky State College, 1881-'82; Professor of Botany and Zoology, Kansas State Agricultural College, 1883-'87; Professor of Botany, Kansas State Agricultural College, 1888-'91; Botanist, Kansas State Board of Agriculture, 1888-'91; present position since 1891.

THOMAS FORSYTH HUNT.....188 West Tenth avenue

Professor of Agriculture, and Dean of the College of Agriculture and Domestic Science

B. Sc., University of Illinois, 1884; M. Sc., University of Illinois, 1892. Assistant to Illinois State Entomologist, 1885-'86; Assistant in Agriculture, University of Illinois, 1886-'88; Assistant Agriculturalist, Illinois Experiment Station, 1888-'91; Professor of Agriculture, Pennsylvania State College, 1891-'92; present position since 1892.

GEORGE BEECHER KAUFFMAN.....University Grounds

Professor of Pharmacy, and Dean of the College of Pharmacy

B. Sc., Ohio Wesleyan University, 1877; Pharm. D., Scio, 1894. Associate Professor of Pharmacy, Ohio State University, to 1894. Present position since 1894.

BENJAMIN LESTER BOWEN.....775 East Broad street

Professor of Romance Languages and Literatures

A. B., University of Rochester, 1881; Ph. D., Johns Hopkins University, 1888. Post-graduate work, University of Rochester, 1881-'82. Professor of Languages, New Windsor College, Maryland, 1881-'83; Graduate Student and Assistant in French, Johns Hopkins University, 1883-'86, and 1887-'88; Student at the Universities of Paris, Bonn, Rome and Madrid, 1885-'86, and 1886-'87; Professor of French and Latin, Bowdoin College, 1888-'89; Acting Associate Professor of French Language and Literature, Ohio State University, 1889-'90; Associate Professor of Romance Languages and Literatures, Ohio State University, 1890-'94; present position since 1894.

JOSEPH VILLIERS DENNEY.....The Dennison

Professor of Rhetoric and the English Language, and Secretary of the University Faculty

A. B., University of Michigan, 1885. Journalist, 1885-'88; Principal of the Aurora (Illinois) High School, 1888-'90; Instructor in English and Graduate Student, University of Michigan, 1890-'91; Associate Professor of Rhetoric, Ohio State University, 1891-'94; present position since 1894.

ALLEN CAMPBELL BARROWS.....15th and Indianola avenues

Professor of English Literature, and Dean of the College of Arts, Philosophy and Science

A. B., Western Reserve, 1861; A. M., Western Reserve, 1866; D. D., Iowa College, 1889. Teacher, Latin and Greek, Phillips Academy, 1865-'66; Professor of Physics, Western Reserve, 1866-'70; Professor of Latin and English Literature, Western Reserve, 1870-'71; Professor of English Literature and History, Iowa Agricultural College, 1887-'94; present position since 1894. *not at hand*

EDWARD ORTON, JR.....The Normandie

Director of the Department of Clay-Working and Ceramics

E. M., Ohio State University, 1884. Assistant to Ohio Geological Survey, 1882; Chemist for Columbus and Hocking Coal and Iron Company, 1885-'86; Superintendent of Bessie Furnace, 1887-'88; Chemist, Iron Works, Homestead, Pennsylvania, 1891; present position since 1894.

*JOHN THOMAS MARTIN.....1194 Fair avenue

Professor of Military Science and Tactics

Graduated from West Point, with rank of Second Lieutenant, U. S. Artillery, 1889. Promoted to Rank of First Lieutenant, 5th Artillery, U. S. A., 1896. Appointed to present position, Commandant of University Battalion, September, 1895.

ROBERT IRVING FULTON.....Delaware, Ohio

Professor of Elocution and Oratory

A. M., Ohio Wesleyan University, 1887. Law Student, University of Virginia, 1877; Superintendent Public Schools, Berlin, Ill., 1877-'78; Associate Principal, School of Oratory, Kansas City, Mo., 1878-'81, and Director of same, 1884-'92; Instructor, Elocution, Ohio Wesleyan, Missouri State, and Kentucky State Universities, 1882-'90; Assistant Professor, English Department, Kansas State University, 1890-'91; Professor of Elocution and Oratory, Ohio Wesleyan University, since 1891; Lecturer, Elocution and Oratory, Ohio State University, 1892-'95; present position since 1895.

WILLIAM FORREST HUNTER.....1032 Bryden Road; 18 Board of Trade

Dean of the College of Law, Professor of the Law of Sales, Bailments, Evidence, Mortgages, Wills Suretyship, Construction of Contracts, Law of Corporations, Judge of Moot Courts

Admitted to the Bar in 1861; Student, University of Michigan Law School; practicing attorney since 1866; Dean of the Law School, Ohio State University, 1892-'96; present position since 1896.

WILLIAM THOMAS MAGRUDER.....320 West Eighth avenue

Professor of Mechanical Engineering

M. E., Stevens Institute of Technology, 1881. Student in Machine Design and Shop Practice, Taunton, Mass., 1881-'86, and in Chemistry and Mathematics, etc., Johns Hopkins University, 1886-'87; Professor of Mechanical Engineering (practical and theoretical) Vanderbilt University, 1887-'96; present position since September, 1896.

J. P. GORDY.....The Normandie

Professor of Education

Ph. D., University of Leipsic, 1884; LL. D., Western University of Pennsylvania, 1897. Student in Philosophy at Leipsic, 1883-'84; Student in Philosophy at Johns Hopkins University, 1886; Assistant in Revision of Webster's Dictionary, 1884-'85; Professor of Philosophy and Pedagogy, Ohio University, Athens, 1886-'96; present position since September, 1896.

WILLIAM McPHERSON, JR.....97 Hamilton avenue

Professor of Chemistry

B. Sc., Ohio State University, 1887; M. Sc., Ohio State University, 1890; D. Sc., Ohio State University, 1895. Instructor in Chemistry and Physics, Toledo High School, 1887-'89; Instructor in Chemistry, Toledo High School and Manual Training School, 1889-'92; Assistant in Chemistry, Ohio State University, 1892-'93; Assistant Professor in Chemistry, Ohio State University, 1893-'95; Associate Professor, General Chemistry, Ohio State University, 1895-'97; present position since 1897.

DAVID FRANKLIN PUGH.....1320 Highland street; Board of Trade

Professor of Equity Jurisprudence and Law of Real Property

Member of West Virginia Constitutional Convention, 1872; Member of Legislature, West Virginia, 1874-'75; Prosecuting Attorney, Tyler County, West Virginia, 1870-'80; Common Pleas Judge, Franklin County, Ohio, since 1887; present position since 1891.

EMILIUS OVIATT RANDALL.....1025 Oak street; Supreme Court Room

Professor of Agency, Commercial Law and Partnership

Ph. B., Cornell, 1874; LL. B., LL. M., Ohio State University, 1892. Admitted to practice, 1890; Secretary Ohio State Historical Society; Reporter Supreme Court of Ohio. Present position since 1893.

* Absent with his Battery since May, 1898. Lieut. Herbert A. White, U. S. A., 6th Cavalry, temporarily in charge.

EDGAR BENTON KINKEAD.....Wyandotte avenue; Board of Trade
*Professor of Pleading and Probate Practice, Torts, Criminal Law, Ethics, Trial Practice
 and Law of Contracts (Engineers)*

Assistant State Law Librarian, 1887-1894; Special Counsel for Attorney-General of Ohio,
 1897-1900. Present position since 1895.

WILLIAM HERBERT PAGE.....The Vendome; 27 Board of Trade
Professor of Elementary Law, Contracts and Wills

B. A., Yale, 1889; LL.B., Ohio State University, 1892; LL.M., same institution, 1894.
 Instructor in Central High School, Columbus, Ohio, 1889-'96. Present position since Sep-
 tember, 1896.*

CHRISTOPHER P. LINHART.....The Great Southern; The Vendome
Director of the Gymnasium, and Instructor in Physical Education

M. D., Western Reserve University, Cleveland, 1882. Post-graduate student, same institu-
 tion, 1882-'83. Student and Instructor, Dr. Anderson's Normal School of Physical Education,
 1886; student in Harvard Summer School, 1887; House Physician and Surgeon, Cleveland City
 Hospital, 1883-'85; Assistant Demonstrator of Anatomy, Western Reserve University, 1885-'86,
 and Assistant Visiting Physician Charity Hospital, Cleveland, 1886; Director of Y. M. C. A.
 Gymnasium, Orange, N. J., 1886 and 1888; Instructor in Physiology and Physical Education,
 Newark, (N. J.), Academy, 1887 and 1890, and Director of Physical Education, Newark, N. J.,
 Public Schools, 1888-'90; Medical Director Manhattan Athletic Club, 1891 and 1892; Instructor
 in Physiology and Physical Education, Union College, 1892-'97. Present position since 1897.

DAVID STUART WHITE.....West Fifth avenue
Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine

D. V. S., Ohio State University, 1890. Student, Royal Veterinary Schools of Hanover,
 Berlin and Dresden, 1890-'91; at Imperial Veterinary Institute of Vienna, 1891-'93; Assistant in
 Veterinary Medicine, Ohio State University, 1893. Present position since 1895.

HERBERT OSBORN.....357 West Seventh avenue
Professor of Zoology and Entomology

B. Sc., Iowa Agricultural College, 1879. M. Sc., same institution, 1880. Student of Ento-
 mology at Museum Comparative Zoology (Cambridge, Mass.) 1881-'82; College of Physicians
 and Surgeons, Des Moines, 1884-85 (Anatomy and Physiology); Zoological Station Naples
 (Smithsonian table), 1894-'95. Assistant in Zoology and Entomology, Iowa Agricultural Col-
 lege, 1880-'83; Assistant Professor of Zoology and Entomology, Iowa Agricultural College,
 1884-'86. Professor and Entomologist, Iowa Agricultural College, 1887-'98; Special Agent
 Division Entomologist U. S. Department of Agriculture, 1885-'94. State Entomologist, Iowa,
 1898.

FRANK EDWIN SANBORN.....380 West Eighth avenue
Director of the Department of Industrial Arts

S. B., in Mechanical Engineering, Massachusetts Institute of Technology, 1889. Assistant
 in Drawing, Massachusetts Institute of Technology, 1889-'90; Teacher in Manual High School
 Department, Pratt Institute, 1890-'91; Walker Special Instructor, Tufts College, 1891-'94; In-
 structor in Mechanical Department, Tufts College, 1894-'98. Present position since Sep-
 tember, 1898.

JOSEPH NELSON BRADFORD.....54 West Tenth avenue
Professor of Drawing

M. E., Ohio State University, 1888. Draftsman, Ohio Geological Survey, 1882; Machinist
 and Draftsman, Pittsburg, Cincinnati & St. Louis Railroad, 1883-85; Assistant in Mechanical
 Engineering and Drawing, Ohio State University, 1885-'90; Assistant Professor of Drawing,
 Ohio State University, 1890-'93. Present position since 1893.

HENRY CURWEN LORD.....401 West Sixth avenue
Director of the Emerson McMillen Observatory, and Associate Professor of Astronomy

B. Sc., University of Wisconsin, 1889. Assistant in Washburn Observatory, University of
 Wisconsin; with Thompson-Houston Electric Company, 1889; Assistant in Mathematics and
 Astronomy, Ohio State University, 1891-'94; elected Fellow, Royal Astronomical Society, 1897.
 Present position since 1895.

FRANK ARNOLD RAY.....137 King avenue

Associate Professor of Mine Engineering

M. E., Ohio State University, 1887. Since then engaged in various lines of work coming within the range of Mine Engineering; Assistant Professor of Mine Engineering, Ohio State University, 1895-'96. Present position since 1896.

FRANCIS CARY CALDWELL.....380 West Eighth avenue

Associate Professor of Electrical Engineering

A. B., Cornell, 1890; M. E., Cornell, 1891. With Thompson-Houston Works, Lynn, Mass., 1891-'92; Student at the National Polytechnic, Zurich, 1892-'93; Assistant Professor of Physics, Ohio State University, 1893-'97. Present position since 1897.

PERLA G. BOWMAN.....The Dennison

Associate Professor of Domestic Science; in charge of the Department of Domestic Economy

Graduate of Toledo High School; Graduate of Toledo Manual Training School; Student at Wells College; Instructor in Toledo Manual Training School; Director of Domestic Science, Toledo Manual Training School; Special Student at Pratt Institute (Brooklyn), and the University of Michigan. Present position since September, 1897.

OLIVE B. JONES.....53 Eleventh avenue

Librarian

Assistant Librarian, 1887. Student, Library Science, Amherst, summer of 1892. Present position since 1893.

EMBURY ASBURY HITCHCOCK.....380 West Eighth avenue

Associate Professor of Experimental Engineering

M. E., Cornell, 1890. Straightline Engine Company, Syracuse, N. Y., 1889; Corliss Steam Engine Company, Providence, R. I., 1890-'93; Assistant in Mechanical Engineering, Ohio State University, 1893-'95; Assistant Professor, Experimental Engineering Ohio State University, 1895-'97. Present position since 1897.

FREDERICK CONVERSE CLARK.....Neil avenue

Associate Professor of Economics and Sociology

A. B., University of Michigan, 1887; A. M., University of Michigan, 1888; Ph. D., University of Michigan, 1891. Student at Halle and Berlin, 1893-'95; Instructor in History and Economics, Ann Arbor High School, 1888-'92; Assistant Professor of Political Economy, Stanford University, 1892-'93; Assistant Professor of Economics and Sociology, Ohio State University, 1895-'98. Present position since 1898.

WILBUR HENRY SIEBERT.....1332 Highland street

Associate Professor of History

A. B., Ohio State University, 1888; A. B., (with honorable mention) Harvard University, 1889; M. A., Harvard, 1890. Student, Freiburg and Berlin, 1890-'91; Student, Harvard, 1895; Assistant in History and Political Science, Ohio State University, 1891-'93; Assistant Professor of History, Ohio State University, 1893-'95, 1897-'98; Student, Harvard University, 1895-'97. Present position since 1898.

WILLIAM DAVID GIBBS.....319 West Fifth avenue

Associate Professor of Agriculture

B. Sc., University of Illinois, 1893. Fellowship in Agriculture, University of Illinois, 1893-'94; Post-graduate work, University of Illinois and University of Wisconsin, 1895; Expert Assistant in Division of Agricultural Soils of the United States Department of Agriculture, summer of 1895; Teacher of Bacteriology, University of Illinois, fall term, 1893; Assistant in Animal Husbandry, University of Illinois, winter term, 1894; Assistant in Agriculture, Ohio State University, spring and fall terms, 1895; Assistant Professor of Agriculture, 1895-'98. Present position since 1898.

STELLA M. ELLIOTT.....1457 Worthington street

Associate Director of the Gymnasium

Student, University of Nebraska, three years; Chautauqua School of Physical Education, summer of 1897; Assistant in Physical Training, University of Nebraska, two years; Y. M. C. A. classes in Physical Training, Lincoln, Nebraska, one year, and in Aurora, Illinois, one year; Assistant Director of Gymnasium, 1897-'98. Present position since 1898.

GEORGE WASHINGTON MCCOARD.....Neil avenue

Assistant Professor of Mathematics

B. A., Bethany, West Virginia, 1873; M. A., Bethany, 1882. Principal of Oakdale Classical Normal Institute, Allegheny County, Pennsylvania, 1873-'74; Private Tutor in Cleveland, Ohio, 1874-'80; Principal of Public Schools, Irving Park, Chicago, 1880-'81; Teacher of Latin and Mathematics, Columbus High School, 1881-'82; Assistant in Mathematics and Latin, Ohio State University, 1882-'87. Present position since 1887.

CHARLES WALTER MESLOH.....University Grounds

Assistant Professor of German

A. B., Ohio State University, 1889; M. A., Ohio State University, 1895. Student in the University of Chicago, 1894; Student, University of Berlin, 1896-'97; Assistant in German, Ohio State University, 1889-'95. Present position since 1895.

HERBERT JAMES NOYES.....Richland City, Wisconsin

Assistant Professor of Dairy Husbandry

President, National Butter and Cheese Makers' Association, 1891; Chief Instructor, Wisconsin Dairy School, 1892-'94; Instructor, Wisconsin Dairymen's Association, 1894. Present position since 1895.

JAMES STEWART HINE248 West Fourth avenue

Assistant in Entomology

B. Sc. (H. and F.) Ohio State University, 1893. Student in Entomology, Cornell, 1895. Present position since 1895.

JAMES ELLSWORTH BOYD.....25 Maynard avenue

Assistant Professor of Physics

B. Sc., Ohio State University, 1891; M. Sc., Cornell, 1896. Student in Physics and Mathematics, Ohio State University, 1893-'95; Student in Experimental and Theoretical Physics, Cornell, 1895-'96; also Student in Sibley College of Mechanic Arts, Cornell, summer of 1895. Assistant in Physics, Ohio State University, 1891-'95; held scholarship in Physics, Cornell, 1895. Present position since September, 1896.

JOSEPH RUSSELL TAYLOR.....86 King avenue

Assistant Professor of Rhetoric

B. A., Ohio State University, 1887; M. A., Columbia, 1897. Taught in Township Schools, Madison County, Ohio, 1887-'88; Assistant in Drawing, Ohio State University, 1889-'94; Student, English, Columbia, 1896-'97; Assistant in Rhetoric, Ohio State University, 1894-'97. Present position since 1897.

CHRISTOPHER ELIAS SHERMAN.....772 Oak street

Assistant Professor of Civil Engineering

C. E., Ohio State University, 1894. Engaged in Civil Engineering in Ohio, Tennessee, Virginia, North Carolina and Arizona for three years, during college course; also engaged in railroad, geological and governmental engineering work. Present position since September, 1896.

WILLIAM LUCIUS GRAVES.....1313 Forsythe avenue

Assistant Professor of Rhetoric

B. A., Ohio State University, 1893; M. A., Ohio State University, 1897. Principal High School, Coshocton, 1894-'95; Fellow and Assistant in Rhetoric and English Language, Ohio State University, 1895-'96. Present position since 1896.

ARTHUR WINFRED HODGMAN.....164 West Ninth avenue

Assistant Professor of the Classic Languages

A. B., Harvard, 1890; A. M., Harvard, 1893; Ph. D. (Classical Philology) Harvard, 1896. Student in Graduate School, Harvard, Classical Philology, 1892-'96. Instructor in Preparatory Schools, Quincy, Duxbury, Mass., 1890-'92; Assistant in Greek and Latin, Ohio State University, 1896-'97. Present position since September, 1897.

CLAIR ALBERT DYE.....169 King avenue

Assistant Professor of Pharmacy

G. Ph., Ohio State University, 1891. Post-graduate student in Chemistry and Pharmacy, Ohio State University; Assistant in Chemistry and Pharmacy, 1890-'94; Assistant in Pharmacy, 1894-'98. Present position since 1898.

THOMAS EWING FRENCH.....435 East Naghten street

Assistant Professor of Drawing

M. E., Ohio State University, 1895. Assistant in Drawing Department three years preceding graduation; Draftsman, The Smith-Vaile Company, Dayton, 1888-'90; Instructor in Mechanical Drawing, Y. M. C. A., Dayton, 1888-'91; Chief Draftsman, The Smith-Vaile Company, Dayton, 1891; Assistant in Drawing, 1891-'98. Present position since 1898.

CHARLES WILLIAM FOULK.....41 Eleventh avenue

Assistant Professor of Analytical Chemistry

B. A., Ohio State University, 1894. Assistant in General Chemistry, 1896-'98. Present position since September, 1898.

JOHN ADAMS BOWNOCKER.....1594 Neil avenue

Assistant Professor of Geology

B. Sc., Ohio State University, 1889; D. Sc., Ohio State University, 1897. Principal of High School, Martin's Ferry, 1889-'92; Fellow in Geology, University of Chicago, 1892-'94; Graduate Scholar, Yale University, 1894-'95; Assistant Geological Survey of Ohio, 1892; Assistant Geological Survey of New Jersey, 1893; Assistant in Geology, 1895-'98. Present position since 1898.

EDWARD M. VAN HARLINGEN.....1594 Neil avenue

Assistant Professor of Anatomy and Physiology

B. Sc., Ohio State University, 1888; M. Sc., Ohio State University, 1897. Graduate Student Ohio State University, 1896-'97; Assistant in Anatomy and Physiology, 1897-'98. Present position since 1898.

FAXON FRANKLIN DUANE ALBERY.....37 Lexington avenue; 119½ South High street

Lecturer on the Law of Insurance

Student of Law and Philosophy in the University of Berlin and the University of Leipsic. Present position since September, 1896.

JAMES HENRY COLLINS.....57 Lexington avenue; Ruggery Building

Lecturer on Federal Practice

In practice for thirty years. Present position since 1891.

JOHN ALLEN SHAUCK.....95 Winner avenue; Supreme Court Room

Lecturer on Supreme Court Practice and Special Cases

B. A., Otterbein University; LL. B., University of Michigan, 1867; A. M., Otterbein University, 1870; LL. D., Otterbein University, 1897. Judge of the Supreme Court of Ohio.

CHARLES LINCOLN ARNOLD.....328 West Eighth avenue

Assistant in Mathematics

B. Sc., Ohio State University, 1890; M. Sc., Ohio State University, 1894. Post-graduate Student, University of Chicago and Ohio State University, 1894-'95. Present position since 1890.

CHARLES WILLIAM WEICK.....51 East Eighth avenue

Assistant in the Industrial Arts and Instructor in Pattern Making and Founding

B. Sc., Industrial Arts, Ohio State University, 1898. Student, Cornell University, summer of 1898; Foreman in pattern shops Buffalo Forge Co., Buffalo, N. Y., 1881-'88; Johnson Steel Co., Johnstown, Pa., 1888-'89; Draftsman Buffalo Forge Co., Buffalo, N. Y., 1889-'92; Chief Draftsman and Designer, Horner Machine Co., Holyoke, Mass., 1892-'93. Present position since 1893.

- WILLIAM ABNER KNIGHT.....206 West Lane avenue
Assistant in the Industrial Arts and Instructor in Machine Work
 Present position since 1893.
- KARL DALE SWARTZEL.....57 East Eighth avenue
Assistant in Mathematics
 B. Sc., Ohio State University, 1893; M. Sc., Ohio State University, 1894. Fellow and Assistant in Mathematics, Ohio State University, 1894-'95. Present position since 1895.
- THOMAS KENYON LEWIS.....68 East Seventh avenue
Assistant in Drawing
 B. Sc., Ohio State University, 1894. Graduate Student, Ohio State University, 1894-'95. Summer of 1897 and summer of 1898 at Cincinnati Art Academy. Present position since graduation.
- *CHARLES A. BRUCE.....234 West Tenth avenue
Assistant in French
 B. A., Ohio State University, 1895. Student of French, Amherst, 1895. Present position since graduation.
- FRANCIS LEROY LANDACRE.....70 West Tenth avenue
Assistant in Zoology
 B. A., Ohio State University, 1895. Present position since graduation.
- WILLIAM FINLEY LAVERY.....North Dormitory
Assistant in Veterinary Medicine
 D. V. M., Ohio State University, 1890. Veterinary practitioner, 1892-'96. Present position since 1896.
- †CHARLES CONRAD SLEFFEL.....174 West First avenue
Assistant in Industrial Department and Forgemaster
 Sixteen years' experience in work-shops. Present position since September, 1896.
- ALBERT EARL VINSON.....134 West Ninth avenue
Assistant in Agricultural Chemistry
 Instructor in Chemistry, Y. M. C. A., Dayton, Ohio, 1895. Present position since September, 1896.
- *FREDERICK EDWARD KESTER.....1473 Neil avenue
Assistant in Physics
 M. E. (in E. E.), Ohio State University, 1895. Fellow in Physics, Ohio State University, 1895-'97. Present position since 1897.
- JOHN H. SCHAFFNER.....79 East Third avenue
Assistant in Botany
 A. B., Baker University, Kansas, 1893. A. M., University of Michigan, 1894; M. S., Baker University, 1896. Student in Botany, Zoology and Geology, University of Michigan, 1893-'95. Student in Botany and Paleo-Botany, University of Chicago, 1896-'97. Assistant in Botany, University of Michigan, 1894-'95. Professor of Natural Sciences, University of South Dakota, 1895-'96.
- CLARK WISSLER.....56 East Fifth avenue
Assistant in Philosophy and Pedagogy
 B. A., Indiana University, 1897. Assistant in Philosophy, Indiana University, 1895-'97.

* Absent on leave.

† Resigned December, 1898.

- JOHN FERGUSON CUNNINGHAM.....1462 Worthington street
Assistant in Horticulture and Forestry
 B. Sc., (in Horticulture) 1897, Ohio State University. Fellow and Laboratory Assistant in Horticulture and Forestry, 1897-'98.
- CHARLES BYRON FREDERICKS.....Veterinary Hospital
Assistant in Veterinary Medicine
 V. M. and S., Ontario Veterinary College, 1893. In practice since graduation. Fellow in Veterinary Medicine, 1897-'98.
- *HARRY WALDO KUHN.....221 West Eleventh avenue
Assistant in Mathematics
 B. Sc., Ohio State University, 1897. Fellow and Assistant in Mathematics, 1897-'98.
- †RAYMOND MOLLYNEAUX HUGHES.....
Assistant Director of the Department of Clay-working and Ceramics
 B. A., Miami, 1893. Student of Chemistry, Chicago University, 1894; Student of Chemistry, Miami, 1894-'96; Teacher of Chemistry and Physics, High School, Hamilton, Ohio, 1893-'95; Student in Chemistry at Massachusetts Institute of Technology, 1897-'98.
- MURRAY P. BRUSH.....532 East Broad street
Assistant in Romance Languages
 A. B., Princeton, 1894; Ph. D., Johns Hopkins, 1898. Student, French Language and Literature in Paris, winter of 1895-'96, attending lectures at Sorbonne, College de France, and Ecole des Hautes-Etudes; Romance Department of Johns Hopkins, 1894-'95 and 1896-'97. Summer of 1897 in Libraries of Italy.
- FRANK RUHLEN.....1568 Neil avenue
Assistant in Agriculture
 B. Sc., (Agr.) Ohio State University, 1896.
- ‡SARAH STUBBS JAMES.....
Assistant in Domestic Economy and Instructor in Domestic Art
 Student in University of Cincinnati, 1892-'93. Student in Miami University, Oxford, O., 1887-'88. Student in Institute of Technology, Boston, Mass., 1896-'97. Student in Columbia University, 1897-'98. Teacher in the Public Schools of Cincinnati, 1875-'79, and in Woodward High School, Cincinnati, O., 1879-'84.
- ALBERT V. BLEININGER.....North Dormitory
Assistant Director of the Department of Clay Working and Ceramics
 Present position since 1898.
- NEWTON HENRY BROWN.....1609 North High street
Assistant in Physics
 M. E. (in E. E.), Ohio State University, 1893; M. A., Cornell University, 1898; Student, Assistant in Physics, 1892-'93; Assistant in Physics, Ohio State University, 1893-'96. Present position since September, 1898.
- GEORGE WASHINGTON RIGHTMIRE.....1404 Summit street
Assistant in American History
 B. Ph., Ohio State University, 1895; M. A., 1898. Teacher in Columbus High School. Present position since 1898.
- EDWARD EVERETT SOMMERMEIR.....113 West Frambes avenue
Assistant in Metallurgy and Mineralogy
 G. Ph., Ohio State University, 1898. Student Laboratory Assistant in Chemistry, 1897-'98. Present position since September, 1898.

* Absent on leave.

† Resigned September, 1898.

‡ Resigned February, 1899.

- DON CARLOS HUDDLESON.....249 West Lane avenue
Assistant in Gymnasium
 G. Ph., Ohio State University, 1897. Medical Student, 1897. Summer School of Physical Training Chautauqua, 1898. Present position since 1898.
- BURT BIDWELL HERRICK.....
Instructor in Cheese Making
- ELISHA SMITH
Assistant in Cheese Making
- CORNELIA PORTER SOUTHER.....The Dennison
Assistant Professor of Domestic Art
 Graduate of Mary Institute (Washington University), St. Louis, Mo., 1883. Graduate Student Mary Institute, 1883-'85. Handarbeitslehrerin, Seminar des Carola-Vereins, Leipsic, 1896-'97. Investigations in Domestic Art Methods in foreign cities, 1896-'98. Teacher of Sewing, Mrs. Ball's Private School, St. Louis, 1898. Present position since February, 1899.
- FREDERICK WILLIAM SMYSER.....Seventh avenue
Assistant in the Industrial Department and Forge-master
 S. B., Massachusetts Institute of Technology, 1896. Instructor in Mechanical Drawing on the Massachusetts Nautical Training Ship "Enterprise," 1896-'97. Present position since January, 1899.
- JOSEPH HENRY VOSSKUEHLER.....
Assistant in Drawing
 Designer, Gross Lithographing Co., Dayton, Ohio, 1889-'90; Draftsman, The Stilwell-Bierce and Smith-Vaile Co., Dayton, 1890-'96; Finckel & Finckel, Patent Attorneys, Columbus, 1897. Present position since September, 1898.
- ROBERT FISHER.....810 Franklin avenue
Fellow, and Laboratory Assistant in Chemistry
 G. Ph., 1895, M. Ph., 1896, Ohio State University. Special Student in Chemistry, same institution, 1896-'97.
- HORACE JUDD.....22 West Woodruff avenue
Fellow, and Laboratory Assistant in Mechanical Engineering
 M. E., 1897, Ohio State University.
- FRANK ORVILLE CLEMENTS.....
Fellow, and Laboratory Assistant in Chemistry
- MELVIN DRESBACH.....230 West Eighth avenue
Fellow, in Anatomy and Physiology
 B. Sc., 1897, Ohio State University.
- WILLIAM C. MILLS.....91 West Frambes avenue
Curator of Archaeology
 B. Sc. (H. and F.), Ohio State University, 1898.
- FREDERICK T. HALE.....239 West Tenth avenue
Fellow, and Laboratory Assistant in Mechanical Engineering
 M. E., Ohio State University, 1898.
- JOHN BERNARD PARKER.....43 West Woodruff avenue
Fellow, and Assistant in Rhetoric
 B. A., Ohio State University, 1898. Present position since September, 1898.

- FRED ALAN FISH.....239 West Eleventh avenue
Fellow, and Laboratory Assistant in Electrical Engineering
 M. E. (in E. E.), Ohio State University, 1898.
- EMMA LEANNA BALL.....225 King avenue
Fellow, and Assistant in Mathematics
 B. Sc., Ohio State University, 1895; M. Sc., same institution, 1896.
- ALFRED HEBER MCINTIRE.....240 West Eighth avenue
Fellow in Industrial Arts
 M. E. (in E. E.), Ohio State University, 1898.
- SAMUEL EUGENE RASOR.....22 West Woodruff avenue
Fellow, and Assistant in Mathematics
 B. Sc., Ohio State University, 1898. Present position since September, 1898.
- OLIVER V. BRUMLEY.....
Fellow, and Assistant in Veterinary Medicine
 Veterinary Surgeon's certificate, Ohio State University, 1897. Practiced 1897-'98.
- BENJAMIN MAAG.....164 West Ninth avenue
Emerson McMillen Fellow, and Assistant in Astronomy
 Ph. B., Wooster University, 1893.
- EDWARD L. FULLMER.....420 West Eighth avenue
Fellow in Botany
- HARRIET TOWNSHEND.....53 West Eleventh avenue
Library Assistant
 Present position since September, 1895.
- MAUD DOROTHY JEFFREY.....65 West Eleventh avenue
Library Assistant
 B. Ph., Ohio State University, 1895. Student of Library Science, Ohio State University, 1895-'96. Student of Library Science, Amherst, summer of 1897. Present position since September, 1896.
- GERTRUDE STOWELL KELLCOTT.....1332 Highland street
Library Assistant
 Student, Ohio State University, 1888-'95. Student of Library Science, Ohio State University, 1895-'96. Student of Library Science, Amherst, summer of 1897. Present position since September, 1896.
- LUCY ALLEN.....1490 Neil avenue
Library Assistant
 B. A., Ohio State University, 1897. Student in Library Science under Dr. G. E. Wire, summer of 1898 at Ohio State University. Present position since September, 1898.
- CLAUD B. GUITTARD.....80 McMillen avenue
Library Assistant

CHANGES, 1899-1900

WITHDRAWN

President James H. Canfield, Professor Robert I. Fulton, Assistant Professor Edward Van Harlingen, Assistant Director of Ceramics Raymond M. Hughes, Assistant Charles C. Siefert, Assistant Murray P. Brush, Assistant Harry W. Kuhn, Assistant Sarah S. James, Assistant Newton H. Brown, Assistant Elisha Smith, Assistant Frederick W. Smyser, Assistant Charles W. Weick, Fellow and Assistant Samuel E. Rasor, Fellow and Laboratory Assistant Robert Fisher, Fellow and Laboratory Assistant Frank O. Clements.

APPOINTMENTS

REV. WILLIAM OXLEY THOMPSON, D. D.....University Grounds
President

CHARLES SMITH PROSSER.....
Associate Professor of Historical Geology

B. S., Cornell University, 1883; M. S., Cornell University, 1886. Instructor in Paleontology, Cornell University, 1885-'88; Assistant Paleontologist, U. S. Geological Survey, 1882-'92; Professor of Natural History, Washburn College, Topeka, Kansas, 1892-'94; Professor of Geology, Union College, Schenectady, N. Y., 1894-'99. Present position since 1899.

CHARLES BRADFIELD MORREY.....
Assistant Professor of Anatomy and Physiology

B. A., Ohio State University, 1890; Post-graduate Student, Ohio State University, 1890-'91; M. D., Starling Medical College, 1896. Assistant in Latin, Ohio State University, 1890-'92; Assistant in Physiology, Ohio State University, 1892-'95; Student in Vienna and Paris, 1897-'99. Present position since 1899.

WILLIAM EDWARDS HENDERSON.....
Assistant Professor of Analytical Chemistry

A. B., University of Wooster, 1891; M. A., 1894; Ph. D., Johns Hopkins University, 1897. Graduate Student Johns Hopkins University, 1893-'97. Fellow in Chemistry, Johns Hopkins University, 1896-'97. Professor of Natural Sciences, College of Emporia, Kansas, 1891-'98. Professor of Chemistry, Ohio University, 1897-'99. Present position since 1899.

EDWIN D. SHURTER, A. M.....
Assistant Professor of Rhetoric and Public Speaking

GEORGE H. MCKNIGHT, PH. D.....
Assistant Professor of Rhetoric and English Language

JOHN B. SANBORN.....
Assistant in American History

A. B., University of Wisconsin, 1896; A. M., University of Wisconsin, 1897; Ph. D., University of Wisconsin, 1899. Graduate Student University of Wisconsin, 1896-'99. Scholar and Assistant in American History, University of Wisconsin, 1898-'99.

SILAS MARTIN.....1269 Dennison avenue
Assistant in Drawing

DONALD ALEXIS KOHR.....
Fellow, and Laboratory Assistant in Chemistry

B. Ph., Ohio State University, 1898. Graduate Student in Chemistry and Mathematics, 1898-'99. Laboratory Assistant in Chemistry, 1898-'99.

S. W. COLLETT, M. Sc.....
Fellow in Botany

JOHN WESLEY YOUNG.....883 East Main street
Fellow, and Assistant in Mathematics

B. Ph., Ohio State University, 1899.

DAVID T. KEATING, B. PH.....1317 East Broad street
Fellow in Philosophy

CHANGES IN TITLES

GEORGE W. McCOARD,	Assistant Professor of Mathematics Associate Professor of Mathematics
CHARLES WALTER MESLOH,	Assistant Professor of German Associate Professor of Germanic Languages
ARTHUR WINFRED HODGMAN,	Assistant Professor of the Classic Languages Associate Professor of the Classic Languages
JOSEPH RUSSELL TAYLOR,	Assistant Professor of Rhetoric Assistant Professor of English Literature
JOHN ADAMS BOWNOCKER,	Assistant Professor of Geology Associate Professor of Inorganic Geology
CHARLES A. BRUCE,	Assistant in French Assistant Professor of the Romance Languages
CHARLES LINCOLN ARNOLD,	Assistant in Mathematics Assistant Professor of Mathematics
KARL D. SWARTZEL,	Assistant in Mathematics Assistant Professor of Mathematics
JOHN H. SCHAFFNER,	Assistant in Botany Assistant Professor of Botany
FRED. ALAN FISH,	Fellow and Laboratory Assistant in Electrical Engineering Assistant in Electrical Engineering
OLIVER V. BRUMLEY,	Fellow and Assistant in Veterinary Medicine Assistant in Veterinary Medicine

EXECUTIVE DEPARTMENT

1898-'99

JAMES H. CANFIELD.....	President
ALEXIS COPE.....	Secretary Board of Trustees and Bursar
W. C. McCracken.....	Chief Engineer
JEAN BLACKFORD.....	Executive Clerk
EDITH D. COCKINS.....	Registrar
C. E. BARNET.....	Accountant
CHARLES LOWE.....	Assistant Engineer
THOMAS BOUDE.....	First Fireman
W. E. CASE.....	Second Fireman
JAMES KELLEY.....	Lawnkeeper
HENRY MARTZ	Watchman

JANITORS

ARTHUR CHANTLER.....	University Hall
HENRY CHANTLER.....	Orton Hall
J. F. LONGMAN.....	Chemical Hall
JOHN H. BROWN.....	Hayes Hall
JOHN CONRAD.....	Horticultural Hall and Veterinary Hospital
D. D. GEREN.....	Gymnasium
WILLIAM WHITESTINE.....	Biological Hall
M. N. COOK.....	Townshend Hall

UNIVERSITY ADDRESSES

- June 11th.....Baccalaureate Sermon, "Things Fundamental to Civilization"
REV. HENRY W. HULBERT, Junior Pastor "The Old Stone Church," Cleveland, O.
- June 14th.....Commencement Address, "Real Life"
PROFESSOR J. WILLIS GLEED, M. A., Topeka, Kansas

FACULTY LECTURE COURSE

- January 7th....."Rise and Fall of Spanish Power"
PROFESSOR EDWIN E. SPARKS, University of Chicago
- January 16th....."The Jew in History"
RABBI DAVID KLEIN, Columbus
- January 23rd....."The Real, the Ideal, and the Romantic"
PROFESSOR ALLEN C. BARROWS, Columbus
- January 30th....."The Ethics of the Spanish-American War"
DR. WILLIAM H. SCOTT, Columbus
- February 20th....."Coal and How We Get It"
PROFESSOR FRANK A. RAY, Columbus
- February 27th....."Deformities"
DR. C. P. LINHART, Columbus
- March 6th....."Nature's Method of Distributing Plants"
PROFESSOR WILLIAM R. LAZENBY, Columbus
- March 13th....."Expression an Important Factor in College Education"
PROFESSOR ROBERT I. FULTON, Delaware

DEPARTMENT LECTURES

AMERICAN HISTORY AND POLITICAL SCIENCE

- April 25th....."The Work of the Ohio Municipal Code Commission"
HON. EDWARD KIBLER, Newark, O.
- May 2d....."The Merit System and National Politics in Municipal Affairs"
HON. D. F. PUGH, Columbus

ECONOMICS

- October 6, 1898....."The General Office"
J. T. BROOKS, Pittsburgh,
Second Vice-President, Pennsylvania System
- November 16, 1898....."Crisis of '98 in India"
IRA A. RICHARDS, Ex-Missionary to Southern India
- December 13, 1898....."Railway Promoting"
F. L. PATRICK,
President, Indianapolis & Southern R. R.

- January 12, 1899....."The Office of Railroad Commissioner"
R. S. KAYLER, Columbus,
Commissioner of Railroads and Telegraphs
- January 17, 1899....."The Express Business"
J. T. CLARK, Columbus,
General Agent, American Express Co.
- January 24, 1899....."Operation of Street Railways"
W. F. KELLY, Columbus,
General Superintendent, Columbus Street Railway Co.
- February 1, 1899....."Pluck — The Essential Factor of Success"
W. I. CHAMBERLAIN,
Associate Editor "Ohio Farmer," President Board of Trustees, O. S. U.
- February 28, 1899....."Bonded Indebtedness of Ohio State University"
ALEXIS COPE,
Secretary, Board of Trustees, O. S. U.
- March 18, 1899....."Practical Hints on the Labor Problem"
JAMES KILBOURNE, Columbus,
President, Kilbourne & Jacobs Manufacturing Co.
- March 21, 1899....."Relation of the Employee to the Company"
E. E. CLARK, Cedar Rapids, Iowa,
Grand Chief, Order of Railway Conductors
- April 4, 1899....."Life Insurance"
HENRY BOHL, Columbus,
Superintendent of Agencies, Prudential Insurance Co.
- April 11, 1899....."Building and Loan Associations"
L. L. RANKIN, Columbus,
Attorney, Buckeye State Building and Loan Association
- April 13, 1899....."The State's Relation to Corporations"
FRANK S. MONNETT,
Attorney-General
- April 18, 1899....."The Credit Men's Association of America"
JOSEPH A. JEFFREY, Columbus,
President, The Jeffrey Manufacturing Co.
- April 23, 25, 1899....."The Man Who Works"
WASHINGTON GLADDEN, Columbus,
Pastor, First Congregational Church
- May 2, 1899....."Fire Insurance"
CYRUS WOODBURY, Columbus,
Special Agent and Adjuster, Queen Insurance Co.
- May 9, 1899....."A, B, C, of Insurance"
LEE DURSTINE,
General Agent, New York Life Insurance Co.
- May 10, 1899....."Board of Trade"
J. W. HOWARD,
Assistant Secretary, Columbus Board of Trade
- May 16, 1899....."Municipal Indebtedness"
W. F. BURDELL, Columbus,
Member, Board of Sinking Fund Commissioners

LECTURES BEFORE SOCIETIES

ENGINEERS

February 24, 1899....."The Work of the Massachusetts Highways Commission"
DR. T. C. MENDENHALL, Worcester, Mass.

April 15, 1899....."The Effect of Mechanical Draft on the Ultimate Efficiency of Steam Boilers"
WALTER B. SNOW, Boston, Mass.

OHIO STATE ARCHÆOLOGICAL AND HISTORICAL SOCIETY

April, 1899....."Indian Trails of Ohio"
ARCHER B. HULBERT, Hudson

THE UNIVERSITY

OHIO STATE UNIVERSITY

THE UNIVERSITY AND THE STATE.

Under an act of Congress passed July 2, 1862, the State of Ohio received from the United States a large grant of the public lands for the purpose of establishing a "college where the leading objects shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." In accordance with this act, the Ohio State University was founded by the State as a public institution of learning. The governing body of the institution is a Board of Trustees, appointed by the Governor of the State for terms of seven years as provided in the law organizing the University. The original endowment has been supplemented, and the objects of the University promoted, by a permanent annual grant from the United States, under an act of 1890, by special appropriations of the General Assembly; and in 1891, by a permanent annual grant from the State, which grant was doubled by the Legislature of 1896. In accordance with the spirit of the law under which it is organized, the University aims to furnish ample facilities for education in the liberal and industrial arts, the sciences and the languages, and for thorough technical and professional study of agriculture, engineering in its various departments, veterinary medicine, pharmacy and law. Through the aid which has been received from the United States and from the State it is enabled to offer its privileges, with a slight charge for incidental expenses, to all persons of either sex who are qualified for admission.

THE STATE SYSTEM OF EDUCATION

A State system of free, public education, worthy of the name, freely offers every opportunity and inducement to its entire school population to pass by systematic methods, easily apprehended by those who are to receive the benefits, in schools under popular control, from the lowest seat in the primary school to graduation by a university of high standing. It is not supposed that all pupils can or will accept these opportunities or respond to these inducements. But the highest welfare of the State demands that both opportunity and inducement shall be continually present, and that the broad and firm highway of sound training and of higher learning shall be opened freely to every child of the State.

The State system is naturally divided into three great sections. The first includes the rural or district schools, and the work done in the first eight grades of the city schools. To this is generally given the name of "the Grades." The second division includes the High Schools. The work of the third division is done by the University.

THE UNIVERSITY

This means that the University is practically the thirteenth, fourteenth, fifteenth and sixteenth grades of this State system of free public education. Its work is related to that of the High Schools precisely as their work is related to that of "the Grades." It ought to be quite as natural for a pupil to look forward from the High School to work in the University, or its equivalent, as to look forward from "the Grades" or the Rural Schools to work in the High Schools.*

ORGANIZATION OF THE UNIVERSITY

The Ohio State University is divided into six colleges, as follows:

The College of Agriculture and Domestic Science consists of those departments represented in the course leading to the degrees of Bachelor of Science in Agriculture, Bachelor of Science in Horticulture and Forestry and Bachelor of Science in Domestic Economy; in the Short Course in Agriculture, in the Short Course in Domestic Economy, and in the Course in Dairying.

The College of Arts, Philosophy and Science consists of those departments represented in the courses leading to the degrees of Bachelor of Arts, Bachelor of Philosophy, and Bachelor of Science; and in the Courses Preparatory to Law and to Journalism, and to Medicine.

The College of Engineering consists of those departments represented in the courses leading to the degrees of Civil Engineer, Engineer of Mines, Engineer of Mines in Ceramics, Mechanical Engineer, Mechanical Engineer in Electrical Engineering, and Bachelor of Science in Industrial Arts, Bachelor of Science in Chemistry or in Metallurgy; in the Course in Architecture, in the Short Course in Clay-working and Ceramics, and in the Short Course in Mining.

The College of Law consists of those departments represented in the course leading to the degree of Bachelor of Laws.

The College of Pharmacy consists of those departments represented in the courses leading to the degree of Bachelor of Science in Pharmacy, and in the Short Course in Pharmacy.

The College of Veterinary Medicine consists of those departments represented in the course leading to the degree of Doctor of Veterinary Medicine, and to a certificate of Veterinary Surgeon.

Each college is under the direction of its own Faculty, which has power to act in all matters pertaining to the work of students in that college.

LOCATION OF THE UNIVERSITY

The University is situated within the corporate limits of the City of Columbus, two miles north of the Union Depot and about three miles from the State Capitol. The University grounds consist of three hundred and thirty acres, bounded east and west by High street and the Olentangy river, respectively. The western portion, about 200 acres, is devoted to agricultural and horticultural purposes, and is under the management of the College of Agriculture and Domestic Science. The eastern portion is occupied by the principal University buildings, campus, athletic and drill grounds, a park-like meadow, and a few acres of primitive forest.

The grounds are laid out with care, ornamented with trees, shrubs and flower

*Of course this does not mean that there will be but one institution of the College or University grade in the state; but that there will be at least one such institution in the state, which shall be recognized as belonging to the state system of public education and as the natural and logical head of that system.

beds; and are so managed as to illustrate the instruction in Botany, Horticulture, Forestry, Landscape Gardening and Floriculture.

The University may be reached by either the North High street or the Neil avenue electric cars. Those wishing to go to the principal buildings of the University, to the residences on the grounds, or the Athletic field, should take a High street car going north. Those wishing to visit the Emerson McMillin Observatory, the Veterinary Hospital, Townsend Hall, Horticultural Hall and the Dormitories, will find the Neil avenue cars more convenient.

BUILDINGS

UNIVERSITY HALL contains the Executive offices, the office of the Secretary of the Trustees, the assembly room (seating twelve hundred persons), four halls for literary societies, the Y. M. C. A. and King's Daughters' room, the Young Woman's League room and class rooms and laboratories for the departments of Economics, English Literature, German, Greek, History, Latin, Mathematics, Pedagogy, Political Science, Philosophy, Physics, Rhetoric and English Language, and Romance Languages. An electric passenger elevator connects all floors.

MECHANICAL HALL contains a room fitted up with cases for the care of models, instruments of precision, etc.; a room for instruction in laboratory mechanics and draughting, and laboratories with the engines, hydraulic plant, testing machines, etc.

BOTANICAL HALL has on the first floor the lecture room of the department of Botany. There are also an office, a store room, a dark room, and a private laboratory for Physiological Botany. On the second floor is the botanical museum, the main laboratory and the assistant's laboratory. Connected with this building is a large greenhouse and propagating house.

ELECTRICAL HALL devotes the first floor to the dynamo room. The floor of this room is of asphalt, laid on a solid concrete foundation. On the second floor are a lecture and draughting room, a photometric room, a library room, and office, stock and locker rooms.

CHEMICAL HALL is now occupied by the departments of Chemistry, Mining and Metallurgy and Pharmacy. The Department of Chemistry occupies the middle portion of the first floor and the middle and western portion of the second floor. The main lecture room has a seating capacity for one hundred and fifty students. The laboratory for introductory work and qualitative analysis has accommodation for two hundred and sixty-four students. There is also a special laboratory for qualitative analysis with accommodations for twenty-five students. The main quantitative laboratory accommodates fifty students. There is also an organic laboratory, a room for the preparation of experiments, a balcony accessible both from the lecture room and preparation room, a room for combustion work, a dark room for spectroscopic work, in addition to a number of smaller rooms used for private laboratories.

The departments of Mining and Metallurgy occupy the east end of the building. In the basement are the smelting furnaces, the assay laboratory, a room for rough work and store room for supplies. On the first floor is the lecture room of the professor of Metallurgy, with a seating capacity of forty; a laboratory with desks for sixteen students, a store room, a balance room, a private laboratory and an office. On the second floor is the lecture room of the associate professor of Mine Engineering, a draughting room, a room for instruments and an office.

The department of Pharmacy occupies the first floor and basement in the west end of the building, and has a lecture room provided for sixty students; a preparation room, a laboratory with desks for twenty-five students; a room for supplies, a balance room, a model drug store and a private laboratory.

ORTON HALL is designed for the permanent accomodation of the large geological collection of the University and for work and instruction in the department of Geology. A portion of it is occupied by the library and reading room. The building is two stories in height, with a high basement, is built of brick and faced with sandstone, and is fireproof throughout. At the right of the main entrance is the geological lecture room and professor's private room; at the left is the University library, reading room and librarian's private room. The central and rear portion is occupied by the geological and paleontological museums. The petrographical laboratory is located on the second floor. In the basement a room is used for work in geographical modeling, the finished models being afterward placed in the collection of such models in a room set apart for the purpose on the second floor. The basement accomodates also the museum of economic geology. A paleontological laboratory or working room is also provided on the second floor.

The greater part of the basement of Orton Hall is occupied as a laboratory by the department of Clay-working and Ceramics. This department is also accomodated with a large room on the first floor for recitation and exhibition purposes. In the rear of Orton Hall is a small brick structure used for the kilns of this department.

HAYES HALL is devoted to instruction in Industrial Arts, Drawing, Civil Engineering and Domestic Economy. On the first floor are two offices, the rooms of the department of Domestic Economy and two lecture rooms, the machine shop, the forge shop and the foundry. On the second floor are the carpenter and pattern shops and six large lecture rooms, with private rooms annexed.

The department of Drawing occupies the third floor for instruction in mechanical and free-hand drawing and photography.

HORTICULTURAL HALL contains recitation rooms and indoor laboratories of the department of Horticulture and Forestry. An extensive greenhouse is attached.

THE VETERINARY HOSPITAL contains on the first floor a veterinary museum and library, a dispensary and two private rooms for the persons in charge. On the second floor are a class room, a bacteriological laboratory and a microscopical laboratory. The rear extension contains an operating hall and a room provided with stalls, cages, etc., for the care of animals under treatment.

THE EMERSON McMILLIN OBSERVATORY is the gift of Mr. Emerson McMillin of New York. The first floor is divided by a hall and stairway into two parts. The east wing contains an office, library, clock room and a large well-lighted room for the students, furnished with tables, where they reduce their observations and keep the records of their work. The west wing contains the transit house, the dome and photographic dark room. The transit house is a light frame structure, so designed as to be kept as free as possible from heat radiated by any heavy walls of masonry. The dome is a wooden frame-work, covered on the outside with canvas. The rest of the building is of pressed brick, the foundation and second story being "rock-faced."

The equipment consists of a twelve-inch equatorial telescope, mounting by Messrs. Warner & Swasey, objective by Mr. Brashear, with a large and powerful spectroscope by Mr. Brashear. This instrument is adapted to use either one or two prisms or a grating, and is provided with a double set of objectives, one corrected for the visual and one for the photographic rays; a positive micrometer with a seven-inch circle by Messrs. Warner & Swasey; a combined zenith telescope and transit instrument of three inches clear aperture by Mr. G. N. Saegmüller; a sidereal clock by Clemens Riefler of Munich; a comparator by Carl Zilius; a four inch portable equatorial by Alvan Clark; a chronograph by Warner & Swasey; sextants, chronometers, meteorological instrument, etc. In addition to the above, Mr. McMillin's gift provides for an excellent astronomical library.

TOWNSEND HALL is devoted exclusively to the instruction given in the College of Agriculture.

On the left of the entrance is the office of the department of Agriculture and a private office, a stenographer's room and fireproof vault. Connected with the office on the south is an assistant's room, opening into a laboratory for advanced students. At the extreme south end of this floor is a large laboratory for student-work in soils and farm crops. Connected with this laboratory is a balance room, a store room and an instructor's laboratory. On the west side of the main corridor, and connected with the instructor's room, is a large class room opening into a preparation room with a dark room. This class room is fitted with all appliances for showing lantern slides of livestock, buildings, machinery, etc. On the same side of the corridor, and on the right of the stairway leading to the basement and second floor, are the class room and instructor's room for dairying. On the right of the main entrance is the department reading room. The north end of this floor is occupied by the museum with an attendant's room.

The north end of the high basement is occupied by the dairy department. This consists of a receiving room, a pasteurizing room, a store room, a refrigerator room, a lavatory, butter-making room, cheese-making room, two cheese-curing rooms and an instructor's room.

In the south end of the basement is a livestock room about forty feet square. One third of this room is occupied by raised seats, the remaining floor space being used for exhibiting and judging livestock. Connected with this is a room fitted with stalls for the temporary accommodation of livestock when needed for class exercises. The basement also contains soil storage room, bath room, toilet rooms, repair shop, locker rooms, bicycle room and janitor's room. A small detached building will furnish steam and power for the dairy department. Detached from the main building, but connected with the soil storage room by a tramway, is a glass house for the study of soils and the experimental growth of plants.

The north end of the second story contains a large student laboratory for the department of Agricultural Chemistry, connected with an organic and analysis laboratory, a balance room, a store room and a private laboratory. The lecture room of this department is at the south end of this floor and will seat one hundred and sixty students on raised seats, with a preparation room adjoining. There is also on this floor a class room connecting with preparation room, store room and instructor's room, which is used (temporarily) by the department of Veterinary Medicine. There is also an extra class room, ladies' toilet and locker rooms and a hall for the use of the Townsend Society, designed to seat about two hundred persons.

BIOLOGICAL HALL is designed for the special accommodation of the departments of Entomology, Zoology, Anatomy and Physiology, and is fully equipped with all the latest and best apparatus for this work. It consists of a basement, in which is done all the work of preparation of subjects for the lecture tables and for the special laboratory work for the advanced students; the first floor, on which are lecture rooms, general and special laboratories, and private work rooms for the professor of Entomology and Zoology and his assistants; the second floor, similarly arranged for the work in Anatomy and Physiology; and a large wing, in which is the museum and a large lecture room. The building is fireproof throughout, and in design and general appearance is one of the most attractive on the campus.

THE GYMNASIUM AND ARMORY was first occupied in January, 1898. The drill hall and gymnasium floor is eighty feet wide by one hundred and fifty feet long. The roof is carried on curved steel arches, lighted from a clear story at the top. There is a running track around the entire room about twelve feet from the floor, back of which is a visitor's gallery seating about seven hundred persons. At the

northwest corner of the floor is a stairway leading down to the men's locker and dressing room, while the young women go down a similar way at the southeast corner to their rooms. On the level with the main floor, near the main entrance at the south, is a large room for the use of the Commandant and his classes and rooms for the Director of the Gymnasium. Above the Commandant's room is the room for the officers of the University Cadet Corps.

The basement is very high and well lighted. On the young men's side are dressing and locker rooms, the bath room with shower and plunge baths, a bicycle room, a lecture room, the cannon room, the band room, and a large room which is to be the home of the University Athletic Association. On the young women's side are the locker rooms and bath rooms — precisely like those provided for the young men — a bicycle room, lecture room and private office for the instruction in sanitation and hygiene for young women.

THE NORTH DORMITORY is situated at the northern limit of Neil avenue, and fronts Eleventh avenue. It is at the terminus of the Neil avenue electric car line. It is a plain structure of brick, and affords accommodation for sixty-four students.

THE SOUTH DORMITORY stands near Neil avenue within a few rods of the North Dormitory. It is also built of brick, and contains rooms for twenty students.

RESIDENCES. There are seven dwelling houses upon the University campus. Five of these are brick and two are frame structures. One is occupied by the President of the University, five by professors, and the seventh is the farm house.

LABORATORIES AND EQUIPMENT

AGRICULTURE

The equipment of this Department may be divided along three general lines: the plant, the museum and the illustrative materials.

THE PLANT. This consists of a farm of about two hundred acres, a general farm barn, a horse barn, and several smaller buildings. The farm lies along the Olentangy river, and includes both first and second bottom land. On this farm are grown general farm crops in the rotation deemed best suited to the circumstances of the Department. At present a few experiments are conducted, the general idea being to conduct such experiments as will have the largest instructional value to the students who attend the College of Agriculture. The Ohio Agricultural Experiment Station continues to conduct here the elaborate fertilizer experiments with wheat, corn and oats, which it has been making on this farm during the past five years. Different species and varieties of farm crops are grown to some extent for the purpose of class illustration and instruction, and it is expected to enlarge this feature.

Specimens of the draft, coach and roadster type of horses are kept and used in the farm work. The Department manages a milk dairy; having a herd of about forty cows, composed of pure bred and grade Jerseys and shorthorns.

The general farm barn contains a well arranged stable for forty cows, with underground drainage and sewage cistern, a milk cooling room, a silo, a root cellar, a work-shop, with room for hay, grain and other foodstuffs.

THE MUSEUM. This contains a large number of samples of farm products in various forms and their by-products, such as soils, grains, grasses, wools, cotton, forage plants and foodstuff. Milling and other processes are illustrated by samples of the various products of manufacture.

The museum contains Auzoux models, samples of tools and a considerable miscellaneous collection. The collections are intended primarily for student use and not for display.

ILLUSTRATIVE MATERIALS. These consist of charts, pictures and lantern slides showing results of experiments, representative and noted specimens of livestock, farm machinery, fences, buildings, etc. The Department has and uses constantly in the class room a Beseler double oxygen-ether stereopticon. The collection of several hundred lantern slides for this purpose is constantly receiving additions.

THE AGRICULTURAL LIBRARY. While not considered as belonging specifically to this Department, there is in the general library a fairly good collection of books and periodicals devoted to agriculture, a large use of which is required of the student.

THE LABORATORY OF SOIL PHYSICS is located on the second floor of Horticultural Hall, and is supplied with apparatus for the mechanical analysis of soils and for testing their physical properties. (*See also BUILDINGS—Townshend Hall.*)

ARCHITECTURE

This work is carried on in connection with the Department of Drawing. The facilities for this work consist of a large, well-lighted drawing-room for the designing and drawing part of the work, a recitation room specially fitted with stereopticon lantern to illustrate the lectures, several hundred lantern slides of typical specimens of architecture from all parts of the world, a collection of scale design drawings, a collection of specifications of buildings that have been erected, a collection of plaster ornaments used in architectural decoration and a well selected collection of useful books in the library. The City contains many buildings of interest to the architectural student, both in a completed state and in process of erection.

BOTANY

The general Botanical Laboratory occupies part of the second floor of Botanical Hall. It is 23 x 33 feet, and is furnished with both movable and fixed tables. The latter are attached to the west and south walls near windows suitably shaded. Water, gas and an evaporating hood are also provided. The laboratory is equipped with compound microscopes of the Baush and Lomb, the Leitz and other patterns; and accompanying each is a tray of tools and a case of reagents. There are more than fifty dissecting microscopes, also charts, and several minor pieces of apparatus for experiments in vegetable physiology. Three smaller rooms are also provided as laboratories for special work, as well as a dark room for photography. Other facilities for the illustration of the courses in botany, and for practical training in the same, are: A general herbarium, including flowering plants, ferns, mosses, fungi and algae; a state herbarium, a collection of fruits and seeds, valuable timbers, woods, grasses and various economic products of the vegetable kingdom; ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; and a greenhouse with a fair collection of native and exotic plants. (*See also MUSEUM—The Botanical Museum; and BUILDINGS—Botanical Hall.*)

CHEMISTRY

The laboratories of the department accommodate from three to four hundred students. Each laboratory is equipped with all the necessary conveniences as water, gas, electric lights, distilled water piped from a large still in the attic, air blasts, suction pumps, etc. The department is generally supplied with the best apparatus and materials for both lecture and laboratory work. Each student procures the apparatus necessary for his work from the store room which has always on hand a complete stock of all necessary materials. (*See also BUILDINGS—Chemical Hall.*)

CIVIL ENGINEERING

The facilities provided for the illustration of the courses in civil engineering and for practical training are as follows: One high grade and three ordinary transits, four leveling instruments, solar compass, prismatic compass, improved telescope compass, Abney hand level, level and stadia rods, sight poles, chains, tapes; twenty-six improved drawing tables with 30" by 36" top; Schroeder's models in stereotomy of roof trusses; large set of models of wooden joints; collection of photographs of bridges, both when finished and in course of erection; collections of strain sheets and shop drawings of bridges; new improved cement testing machines and outfit for making all kinds of cement tests; stone mason tools for working models out of plaster blocks; magic lanterns and slides; collections of samples of building materials; calculating machines; sets of drawing instruments; blue print room with outfit; set of tracings of standard structures from which each student may make a set of blue prints. The equipment is growing each year by the addition of materials purchased, presented, or made by students of the Department.

CLAY-WORKING AND CERAMICS

The University is the first, and at this time the only institution in the United States offering special facilities for the study of clays, clay-working, and the chemical technology of the ceramic art. The facilities of the Department comprise: 1st. A convenient chemical laboratory, specially designed and equipped for the analysis and decomposition of silicates. Provision has been made for the use of hydrofluoric acid with safety, and the platinum ware has been made to order with this purpose in view. 2d. A complete mechanical outfit for the preparation of clays for pottery manufacture and the production of the ware itself, of any grade from earthen wares to porcelain. The machinery is of the latest type and comprises all important varieties in use for grinding, tempering, washing, filtering and molding. 3d. A similar plant for the manufacture of brick, tiles, pipes and hollow goods. The machinery here is of full size and samples up to a ton in weight can be received and transformed into the finished articles by any or all of the standard methods in commercial use. The power for this purpose is derived from a fine electric motor, driven from the University power plant. 4th. A kiln house, equipped with a kiln in which several hundred bricks, or an equivalent quantity of sewer-pipe, stoneware, or pottery can be burnt. The fuel is intended to be coke, except in special cases where the fuel available for burning clay wares is to be made the subject of test. There is also provided a crucible melting furnace and a muffle furnace of testing glazes. A muffle kiln of large size for burning pottery, glazed ware and decorated wares has recently been put into operation. 5th. A ceramic museum, containing a fine collection of American pottery and clay products of every class, is in process of installation. 6th. A library of the best literature on the subject, mainly German but containing a few English and French works, and the trade periodicals. (See also BUILDINGS — *Orton Hall*.)

DOMESTIC ECONOMY

The Department of Domestic Economy (for young women) will secure for the course all that experience and observation may suggest. At present it has a large kitchen, with dining room adjoining, each fitted with the latest and best appliances for the work undertaken. About a thousand dollars has been expended to make this department entirely practical, and to permit its instruction to be as thorough and as scientific as that of any other department in the University.

DRAWING

The Department occupies the entire third floor and one room in the basement of Hayes Hall, and is provided with the following equipment for the illustration of the work in drawing and for the practical training in same:

For freehand drawing, water color and oil painting:—A large studio thirty-five by eighty feet, specially arranged and provided with adjustable tilting tables and easels, a well selected collection of pencil, pen and ink, charcoal and color specimens of work, wooden models of geometric forms, plaster-casts of ornaments, flowers, fruit and the antique.

For clay-modeling:—A specially arranged and equipped studio twenty-six by thirty-two feet for modeling in clay and casting in plaster, consisting of modeling stands, moisture box, casting table, modeling tools of wood and steel, stove and vent-hood for the preparation of gelatine molds and lockers.

For mechanical drawing and mechanical and architectural designing:—A large, well lighted room forty by eighty-five feet, provided with O. S. U. drawing tables (30" by 36" tops), a set of Schroeder models, a collection of shop drawings and facilities for blue-printing.

For photography:—A well arranged and equipped dark-room, printing apparatus, copying camera, six view cameras, lenses of long and short focus, tele-photographic lens, shutters for instantaneous exposures and an excellent outfit for photo-micrography.

In addition to the above, the library contains a well selected collection of books pertaining to the work of the Departments. (See also BUILDINGS—*Hayes Hall*.)

ECONOMICS AND SOCIOLOGY

The University, through the efforts and generosity of its friends, is possessed of a unique equipment for study purposes in these lines. This equipment comprises a large collection of railroad, municipal and school bonds; of stocks of all kinds; of letters of credit, drafts, foreign bills of exchange, bills of lading, checks, enclosures, statements, insurance policies, trust certificates, notes, mortgages and all the necessary forms of business paper; also collections of coins illustrative of various periods in our monetary history, foreign coins, and scrip; also sets of maps and charts and a Kiepert-Commercial Globe 80 cent. in diameter. Ample facilities for statistical work are provided and a seminary room set apart for the use of laboratory material, documents, etc., is always open to advanced students. It is the policy of the Department to make the statistical investigations and research work of advanced students contributory to the permanent equipment of the Department, thus enriching the facilities from year to year with material of scientific and pedagogical value.

ELECTRICAL ENGINEERING

The Electrical Laboratory affords very good facilities for practical experimental work with dynamo machinery and other electrical apparatus. The dynamo equipment consists of twenty-five machines of various makes and sizes from 40 H. P. down; aggregating over 200 horse power. These include direct and alternating current generators, polyphase motors, arc and incandescent lighting generators, railway and stationary motors and unipolar dynamo. The latter, with an alternating current generator and a 2-phase motor, were built by the students; it being the policy of the Department to build as much of its apparatus as possible. There are also a number of transformers of different makes, including one for welding, —

built at the University. Arc lamps of different styles, a 10-kilowatt-hour storage battery, condensers and resistances, and magnetic testing apparatus also form part of the equipment. The list of measuring instruments is quite complete, and includes a standard Weston voltmeter and eleven other Weston volt and am-meters, also four Kelvin static voltmeters, five dynamo-meters, one watt-meter, three galvanometers and a dozen other am-meters and voltmeters of different makes. A telephone laboratory — with apparatus for comparative tests, a variety of transmitters and receivers, and lines running to another building, has been in use for two years. Photometry is given at present in the Physical Laboratory, where the equipment in this line is excellent. Power for running the dynamo laboratory is supplied by three induction motors from the University Power Plant. This latter is a model 2-phase plant, and the electrical part of it has been for the most part installed by the students of the Department. The repair and maintenance of this plant is done by the students, who receive compensation for the time so spent.

GEOLOGY

The University is able to present unusual advantages for the study of Geology. By an act of the Legislature it has been put in possession of all the collections made by the late Geological Survey, and these collections have been supplemented by valuable additions of fossils and minerals from various sources. The State collection embraces a very complete representation of every geological formation shown in Ohio. In its new and ample quarters the Department offers exceptionally good opportunities for work in the lithological, petrographical and modeling laboratories. (See also MUSEUMS — *The Geological Museum*; and BUILDINGS — *Orton Hall*.)

HORTICULTURE AND FORESTRY

Among the facilities provided for the illustration of the courses in horticulture, and for practical training in the same, are: (1) a collection of horticultural tools for budding, grafting, pruning, etc.; (2) an orchard, containing well-selected varieties of the apple, pear, cherry, plum and quince; (3) a small vineyard, containing numerous varieties of the grape; (4) a garden of small fruits, containing all the best varieties of the strawberry, raspberry, blackberry, current and gooseberry; (5) a vegetable garden, with forcing houses, cold frames, experimental plats, conveniences for irrigation, etc.; (6) small nursery and forest tree plantations, with practice rows of budding, grafting, pruning and training; (7) ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; (8) a greenhouse, with a fair collection of native and exotic plants; (9) a collection of preserved natural specimens, and models of fruits, seeds, woods, etc.; (10) a laboratory fairly well equipped with balances, charts and other appliances for study and research. (See also MUSEUMS — *The Botanical Museum*; and BUILDINGS — *Horticultural Hall*.)

MECHANICAL ENGINEERING

The greater portion of Mechanical Hall is devoted to laboratory purposes.

The south laboratory is used for applied mechanics and for gas engineering. Here are located the machines for testing the strength and elasticity of engineering materials, and recording their physical properties automatically and autographically. Oils are tested as illuminants and as lubricants. Belts and pulleys are tested for their slippage, friction and horse-power transmitted. The gas engine plant has three engines, representing gas and gasoline, three methods

of ignition, and fly ball and inertia governors. The air is supplied by a fan through a large meter. Temperatures and pressures of air, gas and water are measured. The fresh and burnt gases are analyzed and their heating values determined by a calorimeter. The power is measured at both the indicator and the brake. The laboratory machine shop and tool room are in this room.

The north laboratory is used as a steam engineering and hydraulic laboratory. Four 35-horse-power engines give facilities for testing single or duplex condensing or non-condensing, simple or compound, throttling or automatic cut-off engines, using either a jet or a surface condenser. Pressure and vacuum gauges are calibrated. Indicator springs of five makers are tested either cold or hot. Five kinds of calorimeters determine the moisture in steam before and after passing three different separators. Injectors are tested for lift, quantity, pressure and steam consumption. Steam pumps of six makes, ranging to 800 gallons per minute capacity; two centrifugal and a rotary pump, enable tests of pumps to be made and deliver water at pressures below 150 pounds to two stand-pipes, which in turn supply turbine and cascade, and Pelton water wheels, and enable experiments to be made on the flow of water through orifices, pipes, valves, etc. Three cisterns, provided with a variety of weirs up to five feet wide, give practice in measuring flowing water. A Venturi meter and a Pitot tube are also used. Ericsson and Rider hot air engines are tested. A Rife hydraulic engine, a Humphries ram, Gem and Eureka water motors, and a pulsometer, are included in the hydraulic apparatus, all of which are connected and prepared for complete tests.

A complete set of Westinghouse air-brake apparatus, a blower and a ventilating fan, enable experiments to be performed in the flow of air. They are supplemented by tests of the heating and ventilating plants in the buildings of the campus.

In addition to the apparatus and equipment of the power plant of the University the power house at Townshend Hall contains a horizontal, return tubular boiler, two steam engines and an ammonia refrigerating machine, making the facilities on the campus for testing quite complete. Machinery, apparatus and appliances are continually being presented, built or purchased, and the student is given an opportunity to test everything under practical conditions of operation. Besides the laboratory facilities, opportunities frequently arise to test machinery, engines or boilers in the city, and in these tests the students take part.

METALLURGY

The metallurgical laboratory has all the appliances for the most modern methods of technical analysis as practiced in iron and steel laboratories, including gas analysis. A furnace room in the basement is fitted for gold and silver assaying, with improved muffle and crucible furnaces.

The lecture room in metallurgy has arrangements for projecting photographs of machines, mines and furnaces, for class illustration, and there is a large collection of such views. There is a photographic room with blue-printing facilities, where students learn to make copies of the drawings used in illustrating the lectures.

A collection of minerals and rocks with a large set of rock sections is provided for illustrating the mineralogy, as well as sets of blow-pipe apparatus for the students in determinative mineralogy. (See also BUILDINGS—*Chemical Hall*; and MUSEUMS—*The Geological Museum*.)

MINE ENGINEERING

The Department is equipped with all of the latest improved instruments and apparatus used in mine engineering, surveying and the study of mine ventilation.

There is a collection of models of mine machinery and supplies, to which additions are being made which are valuable as illustrations. The draughting room is large, well lighted and provided with a desk for each student, where he is personally taught map making and the platting of actual surface and underground surveys; the making of tracings of drawings and how to make blue-prints. He is also taught proper methods of keeping notes and all records necessary to an efficient engineer's office. The students are given practical experience by making actual surveys of coal mines and in working up their notes complete in all of the necessary details. The students are also taught how to make working drawings, plans, estimates and specifications of mining operations and equipment.

The lecture room has arrangements for projecting photographs of machines, mines and mine equipment, for class illustration, and there is a collection of such views. Also photographic room with blue-printing facilities, where students learn to make copies of the drawings made by themselves and those used in illustrating the lectures.

PHARMACY

The facilities provided for illustration of this work and for practical training are as follows: The apartments assigned to this work occupy the west end of the Chemical Hall, first floor and basement. The lecture room will accommodate sixty students, and is provided with a large lecture table and supplied with gas and water, and other conveniences for experiment. About the walls are arranged cases in which are exhibited rare and costly chemicals, curious drugs, and high-grade pharmaceuticals. Adjoining this room is the preparation room and storeroom, where the supplies and apparatus and material are kept, and where the apparatus for experiment and illustration before classes is prepared. Also adjoining this room is the professor's private laboratory. The main laboratory has desks for thirty-five students, each one provided with gas and water, and sufficient storage space for material and apparatus. The laboratory is furnished with apparatus for distilling, and reclaiming, with mills, balances, drying closets, steam vaporizers, hoods and other special apparatus for pharmaceutical work. Opening into the laboratory is the drug store. This drug store is complete, and is in itself a cabinet of official drugs, and all preparations thereof. It is provided with a prescription desk and all apparatus adapted for training in prescription work. Adjoining the laboratory is the reading room, where are kept the various pharmaceutical journals, the dispensaries, and many books of reference. Also adjoining the main laboratory is the balance room, which is well provided with analytical balances, specific gravity balances and microscope, all of which are intended for higher pharmaceutical work.

In the reading room is also a cabinet of crude drugs, which have been classified and numbered but bear no name. This cabinet is adapted to the study of pharmacognosy.

In addition to the foregoing equipment, the Department is possessed of an extensive range of apparatus, by means of which any branch of work in pharmacy can be successfully pursued. The Department is complete in all its details, and affords unexcelled opportunity for the study of pharmacy. (See also BUILDINGS—*Chemical Hall*.)

PHYSICS

The Department has an excellent equipment of apparatus, to which additions are constantly being made. The apparatus includes a large collection of pieces for illustration of the general lecture room work, but is principally chosen for accurate measurements in the laboratory. A set of standards of length, capacity and

mass, sent under the act of Congress supplying such sets to the several agricultural colleges, is in the possession of the Department. The pieces are copies of the United States standards made by the Coast Survey at Washington.

Among the principal pieces of apparatus are a dividing machine by Fauth & Co.; chronometers by Parkinson & Frodsham and by Negus, the latter a break-circuit; a chronograph by Fauth & Co.; a Hipp's chronoscope; cathetometers by Salleron and by the Geneva Society, the latter an exceptionally fine instrument; Regnault's apparatus for vapor tension, for expansion of gases and for specific heat Melloni-Tyndall apparatus for radiant heat; standard thermometers by Baudin and others; Rutherford and Rowland, diffraction gratings; Rowland's spectrum photographs; spectroscopes by Brashear, Browning, Apps and others; Salleron's complete apparatus for projections in polarized light; lanterns for projections by the lime light and the arc light; a variety of sound apparatus from Koenig; portable and quadrant electrometers; Kelvin galvanometers of high and low resistance; Weidemann, Kohlrausch and other galvanometers; standard resistance coils, with Cavendish laboratory certificate; several sets of resistance coils and bridges; a Kew magnetometer; Kelvin standard balances; Weston ammeters and voltmeters; standards of self-induction; standard battery cells; photometric standards and photometers; X-ray apparatus, etc.

Under the laws of Ohio, the professor of physics is *ex officio* State Sealer of Weights and Measures, and all of the standard weights, measures and balances received from the United States government are in the rooms of the Department.

PHYSIOLOGY

The facilities provided for the study of anatomy, bacteriology, histology and physiology are excellent. The laboratory is supplied with skeletons, papier-mache manikin, and many models, including models of the eye, ear, larynx, etc. The apparatus of the Department for work in bacteriology and physiology is of the best and most approved construction, and is adapted to the accurate investigation of bacterial forms, as well as to the thorough performance of the fundamental physiological experiments. Myographs, spectroscopes, microscopes and the necessary chemical outfit are also provided. For work in histology the equipment includes twenty-four individual tables for student experiments, each table being supplied with a good microscope, microscopical accessories, microscopical reagents; and for advanced work, the needed apparatus for instruction in the various methods of hardening, staining, imbedding, section-cutting and injection. The laboratory also has excellent microtomes, imbedding baths and other essentials of a histological outfit. The equipment of the laboratory makes it possible to offer a large range of work for the choice of students in advanced courses. (See also BUILDINGS — *Biological Hall*.)

PSYCHOLOGY AND EDUCATION

The psychological laboratory occupies three rooms on the fourth floor of University Hall and is reasonably well equipped for work in physiological and experimental psychology and for research in related educational lines. For the study of motor processes and development the most improved form of ergograph with complete sets of myographic, chronographic, dynamometric and pneumatic recording appliances, has been provided. A complete outfit of apparatus for the study of sensation, memory and association make it possible for students of education to acquire methods of exact observation of the various mental and motor processes involved in school work. Provision has also been made for work in comparative psychology.

SHOPWORK

The shops, which occupy the north wing of Hayes Hall, afford excellent facilities for instruction in both the practical details and the underlying principles of carpentry, pattern-making, forging, moulding, foundry work and machine work.

The carpenter and pattern shop is equipped with twenty-five benches with complete sets of carpenter tools for each and a large number of special tools for general use, twenty-three pattern-makers' turning lathes with cupboards containing the necessary turning and pattern-making tools under each, a pony planer, a buzz-planer, a circular rip and cross-cut saw, a scroll saw, a trimmer and a power grindstone.

The forge shop is equipped with twenty stationary forges with anvils and tools for each, a heating forge, a portable hand forge, a foot-power hammer, a blacksmith's drill and a punch, shear and bar cutter. The blast for the forges is furnished through underground piping by a 45" Buffalo pressure blower, and the smoke is removed by a 55" Buffalo exhaust fan overhead. Both of these fans are driven by a 15-horse-power electric motor.

The foundry is equipped with a 24" Calliau cupola, the blast for which is furnished by a 30" Buffalo blower; two brass furnaces, one 16 inches in diameter and the other 20 inches in diameter; a core oven, benches for iron and brass moulding, core making and cleaning of castings, a space for floor moulding 30 feet by 40 feet, besides all the necessary moulding tools, flasks, crucibles, ladles, tongs, etc.

The machine shop is driven by a 30 horse power electric motor from above, and is equipped with the following tools: Twenty-eight benches for vise work with complete sets of tools, eight speed lathes, sixteen engine lathes, two planers, two shapers, a milling machine, an upright drill, a sensitive drill, grinding machines for both plane and cylindrical surfaces, tool grinders, emery wheels, etc. This machinery is furnished with all the necessary tools, and the tool room is equipped with full sets of drills, taps, dies, milling cutters, standard plugs, gauges, threads, etc., micrometers and a great variety of special tools. (See also BUILDINGS — *Hayes Hall*.)

VETERINARY MEDICINE

The Veterinary Hospital affords excellent facilities for the treatment and care of animal patients, and also gives the students the opportunity to become practically familiar with the diseases to which our domesticated animals are subject. It contains box stalls, stalls for cold water applications, a large and well lighted operating hall and a special ward for dogs. The front part of the Hospital contains a lecture room, a museum of anatomical and pathological preparations, a drug dispensary and an office. In the museum are skeletons of the horse and ox, a complete manikin of the horse, papier-mache models of various anatomical parts, pathological specimens preserved in alcohol, etc.

In the library are choice collections of works in veterinary medicine and allied sciences and also copies of the leading veterinary periodicals.

The College is well equipped for surgical work. Instruments of the latest and most approved makes are kept in the instrument room for use in operations.

In the daily clinics not only are horses and dogs represented, but also the meat-producing animals from the farm, near the College.

The bacteriological laboratory in the biological department is supplied with apparatus of the most modern and improved construction, the microscopic appliances being adapted to the most accurate work in bacteriology. (See also BUILDINGS — *The Veterinary Hospital, Biological Hall*.)

ZOOLOGY AND ENTOMOLOGY

The outfit of the Department is ample, consisting of general zoological collections, an entomological collection, a series of skeletons, alcoholic specimens, and all needed instruments. (See also MUSEUMS—*The Zoological Museum, The Lake Laboratory, Biological Hall.*)

THE LAKE LABORATORY

There has been established at Sandusky a summer laboratory for the purpose of investigations of the biological problems of the great lakes. It is located at the present site of the State Fish Hatchery in the east bay of Sandusky and is supplied with abundant aquaria, tables, boat and during the summer (June 15-September 15) is equipped with the necessary apparatus for general work. The site has been chosen with special reference to its convenience, the sheltered waters of the bay, proximity of fish packing establishments, ready access to islands and open lake and remarkably abundant forms of life available. It affords a rare opportunity for instructors and students to spend the summer vacation at practical biology in a most agreeable and profitable way. The facilities are offered free to students of any branch of biology but each investigator is expected to provide his own microscope and special apparatus for his own investigation unless otherwise arranged.

THE MUSEUMS

THE GEOLOGICAL MUSEUM of the University has been collected and arranged with reference to instruction rather than to display. The basis of it is a large and comprehensive collection of the rocks, fossils and economic minerals of Ohio. The collection embraces the following named series:

(a.) An excellent representation of the leading divisions of the geological scale of the State, so far as it can be illustrated by rock specimens. The specimens represent the leading phases of each formation, and in many cases carry the characteristic fossils of the horizons from which they are derived.

(b.) A collection of the animal and vegetable fossils of the rocks of Ohio. This series includes a large majority of the described fossils of our formation, and in the number are many type specimens. While all the ages of our geological history are well represented, the collection of the Upper Silurian and Devonian animal fossils is particularly rich and complete. A remarkably fine series of coal plants is also included in the museum. The list of fossils has been greatly extended in the number of species and individuals by the recent purchase of the collection of Mr. Henry Moores, of Columbus.

(c.) The economic minerals of the State are also shown to excellent advantage in the museum. The coals, petroleums, iron ores, clay and building stones produced in Ohio are represented in large collections. Many of the specimens upon which chemical examinations or physical tests have been based in the work of the geological survey of the State are included here.

(d.) Petrographical collections: These collections were selected with a view to their use in petrographical instruction, and embrace the Hawes collection, the Krantz collection and the Rosenbusch complete series of typical rock specimens from important centers abroad. These hand specimens are supplemented by two series of thin sections, including Voigt and Hochgesang's collections of typical rocks and of the petrographically important minerals.

In addition to the collections above described, the museum contains a great deal of valuable material in the line of general geology and mineralogy. Among

other things it includes several valuable suites of ores and many fine mineral specimens.

There also belong to the museum a number of geological casts, models and maps. In this series are included a relief map of the State of Ohio, and also the models of the basins of the Atlantic ocean and Caribbean sea, prepared under the supervision of the United States Coast and Geodetic Survey.

The catalogue of the museum contains more than 10,000 entries; but as only one number is as a rule given to a fossil or a mineral species, the individual specimens make an aggregate list of many thousands in addition to the catalogue list, and probably double this list.

The skeleton of a mastodon, one of the extinct elephants of Ohio, has recently been presented to the museum by N. S. Conway, of Catawba, O., on whose farm it was found. It has been mounted by Prof. H. A. Ward, of Rochester, N. Y., and proves to be one of the largest in the country.

The museum also has a mounted skeleton of *Megalonyx Jeffersonii*, one of the great ground sloths. This specimen has the distinction of being the first and thus far the only mounted skeleton of this animal in the world. The bones were discovered by Abraham Drushell and others in a swamp in Berlin township, in Holmes county, O., in 1890. They were mounted in Ward's Natural Science Establishment, Rochester, N. Y. The entire outlay involved in the purchase of the bones and in mounting them was borne by Mr. Emerson McMillin, of New York.

THE ZOOLOGICAL MUSEUM is located on the ground floor of the wing of Biological Hall. The foundations of a zoological museum have been laid and the work begun on a generous plan. Every effort is being made to secure and preserve excellent specimens in all groups of animals. Not only the adult animals are preserved but the preparatory stages as well, their work and architecture, in fact all that can illustrate the life-history and habits.

Among special features are the Wheaton collection of birds of Ohio, numbering about 1,000 skins; a collection of North American birds about 1,500 skins representing very fully the North American fauna; a number of fine specimens of larger mammals, moose, hippopotamus, deer, tiger, peccary, lion, tapir, etc., most of which have been generously donated by Sells Brothers; a collection of about 3,500 molluscan shells; a fine series of Ohio fishes; numerous reptiles, amphibians, etc.

There is an excellent series of skeletons, crania and alcoholic material for courses in comparative anatomy.

The collection of insects is being rapidly enlarged and the purchase of the Kellicott collection of Odonata makes it especially rich in that order.

Professor Osborne's private collection of Hemiptera is deposited in the Department and available to students for comparison and study.

THE BOTANICAL MUSEUM occupies the second floor of Botanical Hall. It contains the University herbariums, both general and state, also Professor Kellerman's private herbarium of over 20,000 specimens deposited for use in the Botanical Department; a complete collection of the native woods of Ohio; a collection of the seeds and fruits of plants; a collection of native medicinal plants; a general collection of vegetable products, including seeds, textile fibers, coloring substances, etc., illustrating economic or applied botany.

THE AGRICULTURAL MUSEUM. For a description of this museum, see BUILDINGS—Townshend Hall.

THE ANATOMICAL AND PATHOLOGICAL MUSEUM. For a description of this museum, see Laboratories and Equipment, Veterinary Medicine.

THE MUSEUM OF CLAY-WORKING AND CERAMICS is now in process of formation. Some excellent specimens of ceramic products have already been collected, and efforts are being made to increase the collection.

ARCHÆOLOGIC COLLECTION. Orton Hall now contains the second best archæologic exhibit in the Ohio Valley, the total number of specimens owned by the Ohio State University, the Ohio State Historical and Archæological Society and by private individuals, amounting to 46,200. Although the Museum is but three years old, it has shown a remarkable growth.

Field work has been carried on in the various parts of the State during the summers of 1894, 1895 and 1896, and as a result the contents of more than eighty mounds, graves and village sites are now on exhibition. The chief exhibits, illustrating the life of ancient tribes are from Fort Ancient in Warren county, from the mound graves of the lower Scioto and from the Muskingum Valley. It is considered that in Ross county aboriginal culture reaches its highest development in the whole Ohio Valley. This fact is well attested by the presence of numerous copper objects, effigy pipes, fine ornaments and ceremonials, pottery, delicate work in polished stone and flint implements, etc.

The collection from the valley of Brush Creek and along the Ohio itself, and from the hill regions of Ohio, show a much lower grade of culture. Careful comparison of the work of man from these localities is exceedingly interesting.

There is an exhibit from Flint Ridge, illustrating the manufacture of arrow and spear heads. The Museum contains nearly 150 specimens of pottery from Missouri and Arkansas, many of which are effigies of animal, bird and human form.

The founders of the Archæologic Museum are arousing public interest in the preservation and study of Ohio antiquities; and by means of exchanges, lectures and personal solicitation, the growth of the collection is considerable.

LIBRARIES

THE UNIVERSITY LIBRARY

The University Library is located in the east end of Orton Hall. The system of department libraries prevails to a limited extent, small collections of books specially needed in connection with laboratory and class room work being deposited in several departments.

During term time the Library is open six days in the week, legal holidays being excepted. From Monday until Friday the hours are from 7:30 A. M. until 9:30 P. M.; Saturday from 8 A. M. until 4 P. M.

The management of the Library is vested in a Library Council which is composed of the President, the Librarian and the Deans of the six colleges.

STATE LIBRARIES

Students are privileged in being near the two State libraries.

The Ohio State Library numbers about 70,000 volumes and is a circulating one for all the citizens of Ohio. It occupies a room in the State House.

The State Law Library, also in the State House, is the largest and most complete law library in the State. It contains complete sets of the English, Scotch, Irish, Canadian, United States and State reports, statutes and digests. The important legal periodicals are on file.

CITY LIBRARIES

The students of the University, as residents of Columbus, have access to the City Library and the Public School Library, under the usual regulations. The City Library numbers 28,000 volumes. It has specially pleasant reading and refer-

ence rooms. The Public School Library numbers 35,000 volumes, and is a well selected collection of books. Students will find both libraries valuable in supplementing the University Library.

SPECIAL LIBRARY IN ECONOMICS

The University possesses a special library in Economics consisting of several hundred volumes and pamphlets. Over thirty financial, commercial and trade journals are received and filed regularly. The business men of Columbus have contributed over \$1,200 for the equipment of this commercial library.

SPECIAL LIBRARY IN ZOOLOGY AND ENTOMOLOGY

The Department of Zoology and Entomology possesses a special library the nucleus of which was the scientific library of the late Prof. Kellicott which was generously donated to the Department. This has been increased by gifts of special papers by a number of the leading investigators of the country and will be enlarged as rapidly as possible. The private library of the professor is also accessible for reference.

AIDS TO MORAL AND RELIGIOUS CULTURE

Chapel services are held daily (except Saturday and Sunday) at the University, at which the attendance of all instructors and students is expected. The services consist of singing, reading the scriptures, and prayer.

One of the most commendable organizations in the University is a branch of the International Young Men's Christian Association, organized in 1883. It has a large membership and steadily grows in influence. Services are held weekly. New students are made cordially welcome, and young church members will here enjoy Christian influences and fellowship in college life. A University Circle of the International Order of the King's Daughters and Sons holds its meeting once a week, and includes in its membership a majority of the women attending the University. A club for the study and practice of philanthropy has recently been organized by the King's Daughters.

An effort is being made to complete, by subscription, the fund which was begun two years ago by students, alumni and professors, for the erection of a building to accommodate the student organizations of the University.

LITERARY AND OTHER SOCIETIES

The Alcyone Literary Society, open to young men, was founded in 1874; the Horton Literary Society, open to young men, was founded in 1875; the Athenæan Literary Society, open to young men, was founded in the winter of 1896-'97. The Browning Literary Society, founded in 1883, and the Philomathean Literary Society, founded in 1894, are open to young women. These societies have commodious and well furnished apartments in University Hall. They meet weekly, and their work, offering to the student a very desirable training in composition, public speaking, and parliamentary order, is a valuable adjunct to collegiate education.

The Biological Club is an organization of professors and students for mutual assistance and improvement in the line of natural science. Its meetings are regularly held every two weeks, at which papers are read, notes of observation and research presented, and current biological literature discussed. The Chemical Association is a similar organization in the line of chemistry.

The Political Science Club is an organization of instructors and students in political science and history for the consideration of questions in those fields. At the regular bi-weekly meetings papers are read, researches reported, and current questions and publications in political science, considered and discussed.

The Engineering Society is a similar organization of students and instructors, holding meetings bi-weekly, for the consideration of questions in the various branches of engineering.

The Townshend Society of the College of Agriculture meets weekly for the discussion of current topics in agriculture and related subjects.

The Germania Society was founded in 1895. Only students that have had elementary ("first year") German are eligible to membership.

The aim of this society is to give to its members additional opportunities for the study of German Literature and for the practical use of the German language. Nothing but German is spoken at the meetings, which are held every other week throughout the University year. Students of German find it very advantageous to be present at those meetings and to take an active part in them.

The Ethical Society, open to all students and to members of the Faculty, was organized in the winter of 1896-'97, and meets on the afternoon of each alternate Sunday.

The Philosophical Society, organized under the auspices of the departments of Philosophy and Pedagogy, in the winter of 1896-'97, is open to the students of the two departments named, and to those interested in Philosophy.

The Organic Evolution Club was organized in the winter of 1896-'97 by those students and members of the Faculty especially interested in the study of Evolution.

The O. S. U. Dramatic Club was organized in 1893. Its object is to present each year to the University world one of the standard legitimate dramas. Its membership is confined to University circles.

The musical organizations of the University are: The O. S. U. Glee Club, composed of sixteen members; the O. S. U. Octette, a mandolin orchestra of eight pieces; the O. S. U. Mandolin and Guitar Club, and the Cadet Band.

The Ornithological Club encourages observation and research in the study of birds and their habits, especially of our native species. The Wheaton collections in the possession of the University forms a basis of study. The programs consist of papers and discussions and reports of observation and personal work. Anyone interested in birds is eligible to membership and visitors are always welcome. The Club meets on the second and fourth Monday evenings of each month.

The O. S. U. Sketch Club was organized for the purpose of promoting art interest among the students of the University. Its membership is confined to University circles. The active members meet once a week for practical work; the associate members meet once a month in open session for literary programs bearing upon art, history and criticism.

The William F. Hunter Society, in the College of Law, meets for moot-court practice and quiz-work every two weeks.

MILITARY SCIENCE AND TACTICS

Under the law of Congress establishing the University, it is required that instruction shall be given in military science and tactics. In accordance with this provision an officer of the regular army has been detailed to take charge of the Department of Military Science and Tactics; and the Trustees have directed that all male students, except those in the Law College, and such others as may be specially excused, shall render two years of cadet service as a condition of grad-

uation. A uniform has been prescribed with which each member is required to provide himself; and fifty minutes a day are devoted to drill, except on those days when instruction in tactics and art of war is given.

The course of instruction is both practical and theoretical. It is given by means of a systematic drill, supplemented by lectures and recitations, and is so arranged as to occupy five hours per week throughout the year. For purposes of drill, all students enrolled in the Department are organized in a battalion, the officers of which are selected from those students who have shown special proficiency in their University work and the work of the Department. Commissioned officers and non-commissioned officers receive certificates of satisfactory service, issued by the University. A cadet band has been organized in connection with this Department, and is supplied with instruments belonging to the University and to the cadets.

The practical course in infantry embraces all the movements prescribed by the drill regulations of the U. S. Army applicable to a battalion. Instruction in artillery embraces such portions of the United States drill regulations as pertain to the formation of detachments, manual of the piece, mechanical maneuvers and aiming drill. Instruction also includes duties of sentinels, the various ceremonies performed by troops, and military signaling. The theoretical instruction includes a systematic and progressive course in drill regulations of the U. S. Army, the organization and administration of the U. S. Army and the elementary principles governing in the art of war.

Competitive drills are held yearly for two medals; one, the first prize, of gold, presented to the University by the M. C. Lilley & Co., of Columbus, Ohio; the other, the second prize, of silver, presented by Lieut. Wilson, when commandant. These medals remain the property of the University, the winner wearing them until the next competition. The "President's Prize" consists of an officer's sword, given to the captain of the company having the best record for attendance for the year.

The equipments of the Department consist of three hundred Springfield cadet rifles and sets of infantry equipment, twenty officers' swords and belts, the necessary equipment for instruction in signaling, and a few instruments for the band.

The U. S. Ordnance Department furnishes an annual allowance of one thousand rounds of ball and one thousand rounds of blank cartridges for cadet rifles.

PHYSICAL TRAINING

Competent instruction in hygiene and general sanitation is given by the director of the Gymnasium, who has entire charge of the physical training and well-being of all students. Supplementing this work, the practical instruction in military tactics is found to be a most valuable aid. In addition to this, the University grounds afford excellent opportunities for general athletics, and the students support well organized clubs in base ball, foot ball and lawn tennis. These and other sports are participated in by large numbers, and friendly contests are occasionally held with other colleges. Besides the special clubs named above, the students have an athletic association which holds an annual "Field Day," in which prizes are given to the victors in the various contests usual on such occasions.

OHIO FORESTRY BUREAU

This Bureau has been established and located at the University by the Legislature for the purpose of inquiring into the best means of preserving and utilizing the forests of the State.

TERMS AND VACATIONS

The first term of the year 1899-1900 begins on Wednesday following the tenth day of September, and closes on the Wednesday preceding Christmas. The second term begins on the Wednesday following the first day of January, and closes on the Friday following the twenty-first day of March. The third term begins on the Monday following the close of the second term, and closes on Commencement day, which is the Wednesday following the eleventh day of June.

In the college of Arts, Philosophy and Science and in the college of Law the first semester begins on the Wednesday following the tenth day of September and closes on the Friday preceding the second semester. The second semester begins on the Monday of the eighteenth week preceding Commencement Week and closes on Commencement Day.

Regular college exercises are omitted on Thanksgiving Day and the day following, on the twenty-second day of February, and on Memorial Day.

The first term of the University year 1900-1901 and thereafter will begin on the Tuesday following the sixteenth day of September and will close on the Wednesday following the 17th day of June. The first term will close on the Wednesday preceding Christmas; the second term will begin on the Tuesday following the first day of January and will close on the Friday preceding the first Monday in April; the third term will begin on the Wednesday following the close of the second term. The second semester will begin on Monday of the eighteenth week preceding commencement week; and the first semester will close on the Friday preceding the opening of the second semester.

Regular college exercises will be suspended from 4 o'clock P. M. of the Wednesday preceding Christmas until 8 o'clock A. M. of the Tuesday following the first day of January; on Thanksgiving and the day following; on University day which is the twenty-second day of February; from 4 o'clock P. M. of the Friday preceding the first Monday in April until 8 o'clock A. M. of the Wednesday following the first Monday in April; and on Memorial Day.

FEES

THE COLLEGES

INCIDENTAL FEE. — A charge of fifteen dollars a year is made against all students, under the head of incidental expense. In the case of former students if this fee is not paid until the second day of the term one dollar will be added, and for each succeeding day of delinquency fifty cents will be added.

LABORATORY FEES. — Students in the laboratories and shops are required to pay fees to cover, in part, the cost of the material consumed, and the deterioration of the expensive instruments used by them. The fees charged per term in the laboratories mentioned below are as follows:

Agriculture, 6.....	\$ 10 00
" 15.....	5 00
Anatomy and Physiology, 53, 54, 55, 56, 59, 60.....	7 50
" " (Vet. Medicine) 4.....	5 00
Botany, 4, 6, 7, 8, 6a.....	2 00
" 53, 55, 57, 58, 59, 60, 64.....	3 00
" 56 (half semester).....	1 50
Ceramics, 1, 2, 3, 7, 8.....	1 50
" 9, 10, 11, 12.....	5 00
Domestic Science, 1, 2, 3, 4.....	5 00
" 5, 6, 7, 8, 9, 11, 12, 13.....	1 00
Drawing, 7.....	2 00

Elec. Engineering, 4, 5, 4 or 5 hrs., \$7.00; 3 hrs. or less.....	5 00
Gymnasium	1 00
Law of Contracts (Engineering).....	5 00
Metallurgy, 3, 5, 6.....	1 50
Mechanical Engineering, 12, 13, 14, 15, 16, 17, 23, 24, 25.....	5 00
Pharmacy, 7, 8, 9, 10, 11, 15, 17, 18, 51.....	1 50
Pharmacy, 52	2 25
Physics, 5, 6, 7, 9, 11, 3 hrs., \$5.00; over 3 hrs.....	7 00
Physics, 54, 55, 56, 57, 58, 60, 3 hrs., \$7.50; over 3 hrs.....	10 50
Shopwork, 4 hrs. or less.....	5 00
Shopwork, 5 hrs. or more.....	7 00
Zoology and Entomology, 53, 54, 55, 56, 61, 62.....	7 50
Zoology and Entomology, 57, 58, 59, 60.....	4 50
Zoology and Entomology (Agriculture), 4, 7.....	1 00

The fees of the College of Law are \$30 per semester, including the usual incidental fee.

In the laboratories of the Department of Chemistry and Agricultural Chemistry, each student is required at the beginning of each term to pay a fixed charge of one dollar and fifty cents for gas and water (\$2.25 each semester). He is also required to buy his own supplies, as he needs them, at the general storeroom in Chemical Hall, where laboratory supplies are sold to students at first cost to the University.

All term dues must be paid at the opening of each term as a condition of admission to classes.

AUDITOR'S FEE

On presentation to the Bursar of the written consent of the head of a department, and on payment to the Bursar of an auditor's fee of one dollar, any person engaged in teaching is permitted to attend, in that department, any class or course (not to exceed three hours a week for one-half year) which is announced to be especially for teachers or those intending to teach.

GRADUATION FEE.—A fee of five dollars, to cover expenses of graduation, diplomas, etc., is required of each person receiving one of the ordinary degrees from the University, and this fee must be paid before the degree is conferred. A like fee of ten dollars is charged to each person receiving one of the higher graduate degrees.

FREE SCHOLARSHIP IN AGRICULTURE AND DOMESTIC SCIENCE, AND IN VETERINARY MEDICINE.—A free scholarship, good for the two-year Courses, or for the First year of the Short Courses and the First year of the four-year Courses in the College of Agriculture and Domestic Science, is granted to one student annually from each county in Ohio. Each scholarship is valid two years from its grant, and covers the incidental fee and all laboratory fees (except gymnasium fee), but the person appointed to receive its benefits is subject to all the other conditions prescribed for admission to the Course. If in any county there is no applicant for the free scholarship in Agriculture, then a free scholarship, good for two years in the College of Veterinary Medicine, may be granted, subject to the same conditions as are prescribed for the free scholarship in Agriculture. The appointments are made by the county boards of agriculture, and are not transferable by the appointees. To learn whether the scholarship of a given county for the current year has been granted, inquiries should be addressed to the Secretary or President of the County Agricultural Society. For further information concerning these scholarships, inquiries should be addressed to the Dean of the College of Agriculture and Domestic Science.

THE COLLEGE OF LAW

INCIDENTAL FEE.—An incidental fee of fifteen dollars per year is charged to regular undergraduate students.

Upon payment of the incidental fee, law students will be admitted to all the privileges of all the other Colleges of the University, upon the same terms as to admission, discipline, character of studies selected, etc., as other students in the University.

TUITION FEE.—In addition to the incidental fee named above, a tuition fee of twenty-two dollars and fifty cents per semester is charged to regular undergraduate students.

GRADUATE FEE.—A graduate fee of fifteen dollars per semester, payable in advance, is charged to all who take the full graduate work.

DIPLOMA FEE.—A fee of five dollars (to cover the expenses of graduation, diplomas, etc.,) is charged to all who take the degree of Bachelor of Laws, and a fee of ten dollars is charged to those taking the degree of Master of Laws. These fees must be paid before the degrees are conferred.

Special students are required to arrange their fees satisfactorily with the Dean or Secretary before being admitted.

OTHER EXPENSES

There are two dormitories on the University grounds for the use of students. Each occupant is charged by the University a rent of a dollar and a half a term.

The South Dormitory affords unfurnished rooms to such students as desire to board themselves, and thus to reduce their expenses to a minimum. The expense of living in this way is about two dollars per week. Applications for rooms should be made to the President of the University.

The North Dormitory will accommodate more than sixty students. Board, furnished rooms, fuel, light and washing are, at present prices, supplied for about three dollars and fifty cents a week. Students will be admitted on special recommendation to the President of the University.

Boarding clubs are also formed in the neighborhood of the University. Furnished rooms are rented at seventy-five cents to one dollar a week for each student, and the cost of table board is two dollars to three dollars a week.

Board with furnished rooms can be obtained in private families, within convenient distances of the University, at rates varying from three and a half dollars to five dollars a week. The ruling rate may be taken as four dollars.

The uniform with which the members of the battalion are required to provide themselves costs (without overcoat) about fourteen dollars. It is quiet in pattern, and is designed to be worn daily in place of civilian dress.

The expenses of a student in the University for a year may be estimated as follows, excluding clothing (except uniform) and traveling expenses:

	Low	Average	High
Incidental fees	\$15 00	\$15 00	\$15 00
Laboratory fees	15 00	20 00	54 00
Books and stationery	15 00	25 00	40 00
Room	4 50	37 00	75 00
Furniture	10 00	.....	.....
Board	70 00	110 00	150 00
Uniform	14 00	14 00	14 00
	<hr/>	<hr/>	<hr/>
	\$143 50	\$221 00	\$348 00

The second and third estimates for room include light, fuel and care. The third estimate is for a room occupied by a single student. The requirements for laboratory fees and books depend upon the course of study pursued.

SELF-SUPPORT

There is a large amount of work upon the University farm which is assigned to students, preference being given to those who are studying Agriculture. *But the University cannot promise work to all applicants.* Many students find work in private families, in offices, and in various occupations, by means of which they defray at least a portion of their expenses. A person of ability and energy, who is master of a trade, or who can do good work of any kind, can generally find remunerative employment. It has seldom been known that any student of ordinary energy and industry was obliged to leave the University because of a lack of money for necessary expenses, *after having been say sixty days on the ground* — or long enough to inform himself as to the opportunities for securing employment. An employment bureau is maintained at the University, where the names of those seeking work and of those desiring workers are recorded.

For further information, address "Executive Office, State University, Columbus, Ohio."

THE COLLEGES

THE COLLEGES

ADMISSION

The University is open on equal terms to both sexes.

The entrance examinations for 1899 will be held on Monday and Tuesday, June 12 and 13, and on Monday and Tuesday, September 11 and 12. A part of the examinations may be taken in June and the remainder in September. Conditions incurred at the June examinations must be removed at the September examinations.

Applicants for admission to the Colleges of Agriculture, of Arts, Philosophy and Science, or of Pharmacy, must be at least sixteen years of age; for admission to the College of Engineering or of Veterinary Medicine must be at least seventeen years of age; for admission to the College of Law must be at least eighteen years of age. Each must be provided with credentials of scholarship from his last instructor or from the last institution with which he has been connected, and with a certificate of good moral character.

There are three modes of admission to the University:

1. Certificates of the preparatory departments of Colleges of approved standing and of Normal schools in Ohio are accepted, if found satisfactory, in lieu of examination for preparatory studies, under the following conditions:

Each certificate must contain a detailed statement of the studies pursued, the text books used, the amount of work done in each study, the amount of time devoted to it, the date of the examination, and the applicant's rank or standing in it. A copy of the course of study should accompany the certificate; and both should be sent to the University not later than the first of September. *The University cannot promise this recognition to those certificates presented during entrance week.*

Blank certificates will be furnished on application.

Applicants for admission who come from other Colleges or Universities are required to bring certificates of honorable dismissal.

Teachers' certificates (in force) will be accepted at their face value.

2. From time to time the University approves the courses of study in certain High Schools of the State; and the graduates of these High Schools are admitted on presentation of cards issued to them at their graduation by the University through the Principals of the High Schools.

3. All other applicants are subject to examination on the groups of study mentioned below under the headings of those Colleges and Courses in the University which they desire to enter.

Full equivalents for the text-books named will be accepted.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in any of the Colleges of the University, and do not desire to become candidates for degrees, will be admitted on the following conditions:

1. The regular entrance requirements must be satisfied.

But applicants who are not less than twenty-one years of age (eighteen years, in the College of Engineering), after obtaining credit for elementary or "grade" work, and for such other subjects as may be necessary to qualify them for the classes that they wish to enter, may, on the presentation of satisfactory reasons, be admitted by the proper Faculty to any class in the University; provided, that if any student who has been admitted on these conditions afterwards becomes a candidate for a degree, he shall take the omitted entrance examinations at least twelve months before the degree is conferred.

2. On entering the University, students desiring to pursue special work are required to lay before the proper Faculty, for approval or modification, a written statement of the end they have in view, the studies proposed for the attainment of that end, and the probable period of attendance. Such students will be held as strictly to their accepted schemes of work as are the regular undergraduates to their courses of study.

3. *Permission to enter as special undergraduates will be refused to all who fail to give satisfactory evidence of definiteness of purpose, and will be withdrawn whenever the conditions on which it was granted cease to exist.*

ADMISSION TO ADVANCED STANDING

1. Applicants who do not come from some other University or College must first obtain admission to some College of the University in the manner already described. They will then be examined on the undergraduate studies for which they ask credits.

2. Applicants who come from the collegiate department of an approved College, and who bring explicit and official certificates describing their course of study and scholarship, and also certificates of honorable dismissal, will be admitted without examination except such as may be necessary to determine what credit they are to receive here for work done in the College from which they come.

ADMISSION TO GRADUATE WORK

Graduates of this or other institutions may, on application to the Faculty, enter the University and pursue such lines of work as may be arranged or approved by the appropriate collegiate committee. Such graduate students are subject to all the ordinary regulations (as to fees, attendance, etc.), prescribed for undergraduates.

IN THE COLLEGES OF AGRICULTURE AND DOMESTIC SCIENCE, ENGINEERING, LAW AND PHARMACY

Masters degrees are conferred upon graduates in Agriculture, Horticulture and Forestry, Engineering, Law and Pharmacy at the end of not less than one year's residence, which shall be wholly devoted to the completion of an approved course of study in the University. Each is required in addition to present an acceptable thesis upon some subject connected with his course of study.

IN THE COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

1. The degree of Master of Arts will be conferred upon candidates holding the degree of B. A. or B. Ph. from this University or from other institutions making equivalent requirements for those degrees, upon the satisfactory comple-

tion, during not less than one year of residence (devoted exclusively to such work), of an approved course of study, covering a major subject and an allied minor subject. The major subject (two-thirds) shall be graduate work, taken in one of the departments of the Arts, Philosophy and Science College. The minor subject (one-third) may be in graduate work.

2. The degree of Master of Science will be conferred upon candidates holding the degree of B. Sc. from the General Science Course of this University or from institutions making equivalent requirements for this degree, and also upon graduates from the College of Engineering of this University, upon the terms specified for the degree of Master of Arts; except that the major subject must be taken in one of the Departments of Science in the Arts, Philosophy and Science College. The minor subject must be in an allied Science.

3. The degree of Master of Arts will be conferred upon candidates holding the degree of B. A. or B. Ph. and the degree of Master of Science upon candidates holding the degree of B. Sc. from this University or from other institutions making equivalent requirements for these degrees, and the degree of Master of Science will be conferred on graduates from the College of Engineering of this University, on the completion, during not less than one year of residence of a course of study in one or more of the departments of the College of Arts, Philosophy and Science, not less than one-third of which course must be graduate work and not more than two-thirds may be such undergraduate work as is announced to be elective, such course to be subject to the approval of the Executive Committee of the Faculty of the College of Arts, Philosophy and Science. But a degree conferred under the provisions of this paragraph shall in no case be counted towards the degree of Doctor of Philosophy, or Doctor of Science.

4. With the consent of the Faculty the work of candidates for the Master's degree may be distributed over more than one year.

5. Each candidate for a Master's degree must also prepare and submit a thesis, and after its acceptance, be examined upon the work assigned him.

6. The degree of Ph. D. or of D. Sc. will be conferred upon holders of the appropriate baccalaureate degree from this University, or from other institutions making equivalent requirements for the first degree, upon the satisfactory completion of three years of resident graduate work in the Arts, Philosophy and Science College, including thesis and examinations. Holders of the degree of Master of Arts or Master of Science from this University, under the conditions prescribed in paragraph one or two, or from other institutions making equivalent requirements for these degrees, may receive the Doctor's degree on the satisfactory completion of two years of resident graduate work after obtaining the Master's degree. On approval of the Faculty, the work of the first year or of the first two years, of the three, may be done at another University which offers equivalent graduate work.

7. Candidates for the degree of Doctor of Science must take their work wholly in Science.

8. With the consent of the Faculty the work required of candidates for Doctor's degrees may be distributed over more than three years.

FELLOWSHIPS

To encourage graduates of this University, and of other similar and approved institutions in this state, to continue their work and to complete the courses necessary to second (and other) degrees, the University authorities have established fellowships in several departments. These demand about one-half of the time of the fellow for laboratory instruction or other similar assistance—as far as possible,

along the line of his graduate study. The remainder of his time is given to graduate work. The fellowships pay from \$250 to \$300 for the University year.

Following are the fellowships for the academic year 1899-1900 as far as at present determined:

Anatomy and Physiology, Botany, Chemistry (two), American History and Political Science, Industrial Arts, Mathematics (two), Mechanical Engineering, Philosophy, Rhetoric and English Language, Veterinary Medicine.

In addition to these, Mr. Emerson McMillin has established two fellowships: one in Astronomy, \$300 for the academic year; and one in Economics, \$250 for the academic year. No service is required in these fellowships, and fellows are expected to give their entire time to their graduate work.

Correspondence should be directed to the Executive Office of the University.

PRIZES

Through the generosity of Hon. William J. Bryan an annual prize of fifteen dollars is offered for the best essay on the principles underlying the form of government of the United States. Competition for this prize is open to all students of the University.

The Edward Thompson Company offer annually to the student writing the best essay on a legal theme selected by the Faculty of the College of Law, the second edition of the English and American Encyclopedia of Law: which includes about thirty volumes.

Other prizes are offered in special departments, for which see department circulars or the heads of the departments.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

FOR ADMISSION¹

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English (a)*—Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience. The second essay will be upon a subject drawn from the list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition—Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in four types—description, narration, exposition and argumentation. Some of these subjects should be taken from English and American classics, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during his preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics*—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Speech on Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Minor Poems* (*Comus, Lycidas, L'Allegro, Il Penseroso*); Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic

¹An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra* — Venable's Easy Algebra, complete.

4. *Botany* — Gray or Kellerman's Elementary Botany and Spring Flora, or equivalent.

7. *Latin* — Pronunciation (the Roman method): Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*.

Or *French* — The whole subject of French Grammar. Applicants will be expected to read at sight easy French and to translate correctly into French simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The text read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

Or *German* — Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, *i. e.*, declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages): Joynes's or Whitney's Reader, Hillern's *Höher als die Kirche*, Riehl's *Der Fluch der Schönheit*, Freytag's *Die Verlorne Handschrift*, Gerstäcker *Irrfahrten*.

For the present, the *German* or *French* required for admission may be begun at the University, but without University credits.

5. *Plane Geometry* — White, Venable, Wentworth, or Wells.

6. *Physics* — Gage, Carhart and Chute, Avery, or Appleton.

7. Either of the following:

Civil Government — Fisk or Thorpe preferred.

History — Myers's *General History*.

COURSE IN AGRICULTURE

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

REQUIRED		REQUIRED		REQUIRED	
FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1)	5.	Agr'l Chemistry (8)	5.	Agr'l Chemistry (9)	5.
Principles.		Organic.		Applications.	
Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological and		Economic Botany and	
		Economic.		Vegetable Pathology.	
Drawing (10)	2.				
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
		Shopwork (1)	3.		
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Vertebrate.	
Cadet Service (men).*		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

SECOND YEAR

REQUIRED		REQUIRED		REQUIRED	
Agriculture (8)	4.	Agriculture (9)	4.	Agriculture (10)	4.
Breeds of Live Stock.		Principles of Breeding.		Stock Feeding.	
Agr'l Chemistry (4)	5.	Agr'l Chemistry (4)	5.	Agr'l Chemistry (4)	5.
Laboratory.		Laboratory.		Laboratory.	
Horticulture (1)	4.	Shopwork (2)	3.	Horticulture (1)	4.
Elements.		Physiology (1)	3.	Elements.	
Physiology (1)	3.	Physiology.		Physiology (1)	3.
Anatomy.		Zoology (4)	2.	Physiology.	
Zoology (4)	2.	Economic Entomology.		Zoology (4)	2.
Economic Entomology.		Cadet Service (men).		Economic Entomology.	
Cadet Service (men).		Hygiene and Physical		Cadet Service (men).	
Hygiene and Physical		Training (women).		Hygiene and Physical	
Training (women).				Training (women).	

THIRD YEAR

REQUIRED		REQUIRED		REQUIRED	
Agriculture (11)	4.	Agriculture (12)	4.	Agriculture (13)	4.
Farm Equipment.		Soils.		Crops.	
†French (1)	} 4.	†French (1)	} 4.	Drawing (16)	3.
Elementary,		Elementary,		†French (1)	} 4.
or		or		Elementary,	
†German (1)	} 4.	†German (1)	} 4.	or	} 4.
Elementary.		Elementary.		†German (1).	
Geology (2)	5.	Geology (2)	5.	Elementary.	} 2.
General.		General.		Astronomy (3)	
Veterin'y Medicine (28)	5.	Veterin'y Medicine (28)	5.	Meteorology.	
Anatomy.		General Pathology.		Veterin'y Medicine (30)	5.
				Special Pathology.	

* A rule of the Board of Trustees requires each male student (except students in the College of Law) to render two years' cadet service as a condition of graduation. Students physically incapacitated for cadet service will be assigned an equivalent in special gymnasium work. The President has authority to excuse from cadet service under certain conditions.

Young women are required to carry Hygiene and Physical Training in place of cadet service.

† Where credit is received for Elementary French or German, French (2) 4 hours or German (4) 4 hours is required.

FOURTH YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agriculture (14)	4.	Agriculture (15)	4.	Agriculture (16)	4.
Animal Mechanics.		Dairy.		Rural Economics.	
History (5)	4.	History (5), Economics (2)	4.	Economics (2)	4.
U. S. Political.		Political Economy.			

ELECTIVE

Ten hours a week through the year, including two hours for thesis, chosen from any of the courses given in any College of the University upon which the student is qualified to enter; except in the College of Law.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN HORTICULTURE AND FORESTRY

FIRST YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1)	5.	Agr'l Chemistry (8)	5.	Agr'l Chemistry (9)	5.
Principles.		Organic.		Applications.	
Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological, Economic.		Economic Botany. Vegetable Pathology.	
Drawing (10)	2.				
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
		Shopwork (1)	3.		
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Vertebrate.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

SECOND YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (4) Laboratory.	5.	Agr'l Chemistry (4) Laboratory.	5.	Agr'l Chemistry (4) Laboratory.	5.
*French (1) Elementary	4.	French (1) Elementary	4.	French (1) Elementary	4.
or		or		or	
*German (1) Elementary.	4.	German (1) Elementary.	4.	German (1) Elementary.	4.
Horticulture (1) Elements.		Shopwork (2)		Horticulture (1) Elements.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Anatomy.		Physiology.		Physiology.	
Zoology (4)	2.	Zoology (4)	2.	Zoology (4)	2.
Economic Entomology.		Economic Entomology.		Economic Entomology.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

THIRD YEAR

REQUIRED

Agriculture (11) Farm Equipment.	4.	Agriculture (12) Soils.	4.	Agriculture (13) Crops.	4.
				Astronomy (3) Meteorology.	2.
French (2) or	4.	French (2) or	4.	Drawing (16)	3.
German (4)		German (4)		French (2)	4.
Geology (2)	5.	Geology (2)	5.	German (4)	3.
General.		General.		Zoology (4) Economic Entomology.	3.
Horticulture (6) Pomology, Viticulture.	4.	Horticulture (6) Vegetables and Nursery.	4.	Horticulture (7) Small Fruits and Spraying.	4.

FOURTH YEAR

REQUIRED

Horticulture (8) Elementary Floriculture.	2.	Horticulture (9) Commercial Floriculture.	2.	Horticulture (10) Home Floriculture.	2.
Horticulture (11) Arboriculture.	2.	Horticulture (12) Forestry.	2.	Horticulture (13) Landscape Gardening.	2.
History (5) U. S. Political.	4.	History (5), Economics (2) Political Economy.	4.	Economics (2)	4.

ELECTIVE

Ten hours a week through the year, including two hours for thesis, chosen from any of the courses given in any College of the University upon which the student is qualified to enter; except in the College of Law.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head

* Where credit is received for Elementary French or German, French (2) 4 or German (4) 4 is required.

of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN DOMESTIC ECONOMY

FIRST YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1)	5.	Agr'l Chemistry (8)	5.	Agr'l Chemistry (9)	5.
Principles.		Organic.		Applications.	
Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological and		Economic Botany,	
		Economic.		Vegetable Pathology.	
Drawing (1)	2.	Drawing (1)	2.	Drawing (1)	2.
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Invertebrate.	
Hygiene and Phys. Train.		Hygiene and Phys. Train.		Hygiene and Phys. Train.	

SECOND YEAR

REQUIRED

Agr'l Chemistry (4)	5.	Agr'l Chemistry (4)	5.	Physiology (3)	3.
Laboratory.*		Laboratory.*		Chemical Physiology.*	
Domestic Economy (1)	4.	Domestic Economy (2)	4.	Domestic Economy (3)	4.
Drawing	2.	Drawing	2.	Drawing (15)	2.
Mechanical.		Architectural.		House Designing.	
†French (1)	} 4.	French (1)	} 4.	French (1)	} 4.
Elementary,		Elementary,		Elementary,	
or		or		or	
†German (1)	} 4.	German (1)	} 4.	German (1)	} 4.
Elementary.		Elementary.		Elementary.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Hygiene and Phys. Train.		Hygiene and Phys. Train.		Domestic Economy (10)	1.
				Household Economics.	
				Hygiene and Phys. Train.	

THIRD YEAR

REQUIRED

Domestic Economy (4)	4.	Domestic Economy (5)	4.	Domestic Economy (6)	4.
French (2)	} 4.	French (2)	} 4.	French (2)	} 4.
or		or		or	
German (4)	} 4.	German (4)	} 4.	German (4)	} 4.
History (5)		History (5)		Economics (2)	
U. S. Political.	4.	U. S. Political.	4-2.	Political Economy.	4.
Education (1)	4.	Economics (2)		English Literature (2)	4.
		Political Economy.			
		Education (1)	4-2.		
		English Literature (2)	4-2.		

* Specific laboratory work will be provided for students in this course, where necessary.

† Where credit is received for Elementary French or German, French (2) 4 hours or German (4) 4 hours is required.

FOURTH YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Domestic Economy (7)	4.	Domestic Economy (8)	4.	Domestic Economy (9)	4.
Horticulture (8)	2.	Horticulture (9)	2.	Horticulture (10)	2.
Elements of Floriculture.		Commercial Floriculture.		Home Floriculture.	
		Physiology (6)	2.		

ELECTIVE

Ten hours a week through the year, including two hours for thesis, chosen from any of the courses given in any College of the University upon which the student is qualified to enter; except in the College of Law.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

THE SHORT COURSES

A two-year course in Agriculture and a two-year course in Domestic Economy have been provided for those who have neither the time nor the means to pursue four-year courses. These short courses also enable those who lack the preparation for entering the four-year courses to obtain such preparation. The studies of the first year of the short courses, it will be noticed, nearly prepare the student to enter the first year of the four-year courses. The student having had chemistry in the first year of a short course can finish his preparation for either of the four-year courses during the first year of the latter course, in place of the chemistry required.

At the end of the first year of the Short Course in Agriculture, for example, the student has three strings to his bow. He may finish the second year of the short course by taking the more technical studies from the four-year courses; if lack of time or means demand it; or he may enter either the four-year course in Agriculture or the four-year course in Horticulture and Forestry. The same is practically true of the Short Course in Domestic Economy.

These short courses are not, of course, to be compared in breadth, strength, or thoroughness with the full courses of the University. They are far better preparation for the work to which they lead than no preparation; but all students are urged to take or to continue into the full four-year courses wherever possible.

ADMISSION TO THE SHORT COURSES IN AGRICULTURE AND DOMESTIC ECONOMY AND THE COURSE IN DAIRYING

Applicants must be at least fifteen years of age, and unless over twenty-one years of age must pass an examination in *Arithmetic*, *Geography*, *Grammar* and *United States History*, or bring High School or other certificates for those branches. Applicants who are over twenty-one are admitted without examination.

THE SHORT COURSE IN AGRICULTURE

FIRST YEAR

		REQUIRED			
FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1)	5.	Agr'l Chemistry (8)	5.	Agr'l Chemistry (9)	5.
Principles.		Organic.		Applications.	
Mathematics (1)	5.	Mathematics (3)	5.	Botany (1)	5.
Algebra.		Geometry.		Elementary.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary.		Elementary.		Physical Geography.	
Drawing (10)	2.	Shopwork (1)	3.	Physiology (2)	3.
Mechanical.				General.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Not less than fifteen hours per week through the year; chosen from any of the following courses subject to conditions named under "Departments of Instruction."

Agriculture (8)	4.	Agriculture (9)	4.	Agriculture (10)	4.
Breeds of Live Stock.		Principles of Breeding.		Stock Feeding.	
Agriculture (11)	4.	Agriculture (12)	4.	Agriculture (13)	4.
Farm Equipment.		Soils.		Crops.	
Botany (6)	5.	Agriculture (15)	4.	Zoology (7)	3.
Physiological.		Dairy.		Entomology.	
Horticulture (1)	4.	Horticulture (1)	4.	Horticulture (1)	4.
Elements.		Elements.		Elements.	
		Shopwork (2)	3.	Veterinary Medicine (30)	5.
Veterinary Medicine (28)	5.	Veterinary Medicine (29)	5.	Special Pathology.	
Anatomy.		General Pathology.		Horticulture (7)	4.
Horticulture (5)	4.	Horticulture (6)	2.		
		Physiology (6)			
Cadet Service.		Cadet Service.		Cadet Service.	

COURSE IN DAIRYING

The course in dairying begins each year on the Wednesday following the first day of January, and continues during the entire term. Butter-making, as practiced in the farm dairy and in the creamery, is thoroughly taught. The student performs all necessary operations in the manufacture of butter by these two methods, under the guidance of the instructors. In cheese-making the principles are taught, with elementary practice.

Agriculture (5). Dairy Farming. — Three hours each week. Lectures and recitations on breeds, breeding, feeding, selection and judging of dairy stock, equipment and management of dairy farms.

Agriculture (6). Butter and Cheese-making. — Four half days each week. Laboratory practice in running separator, churning, working butter, making cheese, milk testing, etc.

Agriculture (7). Butter and Cheese-making. — Two hours each week. Lectures and recitations.

Agricultural Chemistry (7). Milk Chemistry and Milk Testing. — Two hours each week. Lectures and laboratory practice.

Physiology (6). Bacteria in their relation to Milk, Butter and Cheese.—Two hours each week. Lectures and laboratory practice.
 Veterinary Medicine (17). Diseases of the Cow. Three hours each week.
 Mechanical Engineering (26). Steam Machinery.—One hour each week.

SHORT COURSE IN DOMESTIC ECONOMY

FIRST YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1)	5.	Agr'l Chemistry (8)	5.	Agr'l Chemistry	5.
Principles.		Organic.		Applications.	
Mathematics (1)	5.	Mathematics (3)	5.	Botany (1)	5.
Algebra.		Geometry.		Elementary.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary.		Elementary.		Physical Geography.	
Hygiene and Phys. Train.		Hygiene and Phys. Train.		Hygiene and Phys. Train.	

SECOND YEAR

REQUIRED

Domestic Economy	4.	Domestic Economy	4.	Domestic Economy	4.
Domestic Economy	4.	Domestic Economy	4.	Domestic Economy	4.
Hygiene and Phys. Train.		Hygiene and Phys. Train.		Hygiene and Phys. Train.	

ELECTIVE

Not less than seven hours per week chosen from the following courses; subject to the conditions named under "Departments of Instruction":

Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological and		Economic Botany,	
		Economic.		Vegetable Pathology.	
Drawing (1)	2.	Drawing (1)	2.	Drawing (1)	2.
English Literature	4.	English Literature	4.	English Literature	4.
Horticulture (8)	2.	Horticulture (9)	2.	Horticulture (10)	2.
General Floriculture.		Commercial Floriculture.		Home Floriculture.	
Rhetoric (6)	2½.	Rhetoric (6)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Vertebrate.	

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCE

FOR ADMISSION¹ TO THE COURSE IN ARTS

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English (a)* — Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience. The second essay will be upon a subject drawn from the list of classics printed below.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises — paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition — Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in four types — description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below, and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics* — Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro* and *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra* — Taylor's Academic or equivalent.
 4. *Botany* — Kellerman's Elementary Botany and Spring Flora or equivalent.
 5. *Civil Government* — Fiske or Thorpe preferred.
 6. *Geometry, Plane and Solid* — Venable, White, Wentworth or Wells.
 7. *Greek* — Grammar (Goodwin's preferred) and Prose Composition; or the first 100 lessons of White's Beginner's Greek Book. Reading: The first three books of Xenophon's *Anabasis*. At least two years should be devoted to this work.
 8. *History* — Either Myers's General History (or equivalent); or, if the teacher's training and the school library will warrant, Greek and Roman History on the topical method. A circular concerning the topical method will be sent on application.
 9. *Latin* — Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*; Cicero, six orations, including *Pro Lege Manilia*; Vergil, the first six books of the *Aeneid*, with Prosody; Prose Composition, Daniell or Collar or Jones or Dodge and Tuttle, entire.
 10. *Physics* — Carhart and Chute, Gage, Avery, or Appleton.
- For the present, the *Greek* required for admission may be begun at the University, but without University credits.

TO THE LATIN COURSE IN PHILOSOPHY

The requirements are the same as for admission to the Course in Arts; except that instead of *Greek*, the applicant must offer *French* or *German*, as follows:

French — The whole subject of French Grammar. Applicants will be expected to read at sight easy French and to translate correctly into French simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The text read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

German — Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, i. e., declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages): Joynes's or Whitney's Reader, Hillern's *Höher als die Kirche*, Riehl's *Der Fluch der Schönheit*, Freytag's *Die Verlorne Handschrift*, Gerstäcker *Irrfahrten*.

For the year 1899, the *German* or *French* required for admission may be begun at the University, but without University credits. For the year 1900, and thereafter, the full requirements as above stated will be held to.

TO THE MODERN LANGUAGE COURSE IN PHILOSOPHY

The requirements are the same as for admission to the Course in Arts; except that instead of *Latin* and *Greek*, the applicant may offer *Latin* and *French*, or *Latin* and *German*, or *French* and *German*, in the amounts specified above.

For the year 1899, either the *French* or the *German*, (but not both) required for admission may be begun at the University, but without University credits.

For the year 1900, and thereafter, the full requirements as above stated will be maintained.

TO THE ENGLISH COURSE IN PHILOSOPHY.

The requirements are the same as for admission to the Modern Language Course in Philosophy. But in place of one of the foreign languages the applicant may offer the following group:

1. *Chemistry*—Williams or Remsen.
2. *English Literature*—Pancoast's Introduction to English Literature and an acquaintance with representative works in each period; or, *English History*—Montgomery.
3. *Physiology*—Martin (briefer course).

For the year 1899, one modern language required for admission may be begun at the University, but without University credits. For the year 1900, and thereafter the full requirements as above stated will be held to.

TO THE COURSE IN COMMERCE AND ADMINISTRATION

The requirements are the same as for admission to the Modern Language Course in Philosophy.

TO THE COURSE IN SCIENCE

The requirements are the same as for admission to the Modern Language Course in Philosophy.

TO GRADUATE WORK

1. The degree of Master of Arts will be conferred upon candidates holding the degree of B. A. or B. Ph. from this University or from other institutions making equivalent requirements for those degrees, upon the satisfactory completion, during not less than one year of residence (devoted exclusively to such work), of an approved course of study, covering a major subject and an allied minor subject. The major subject (two-thirds) shall be graduate work, taken in one of the departments of this (the Arts, Philosophy and Science) College. The minor subject (one-third) may be in graduate work.

2. The degree of Master of Science will be conferred upon candidates holding the degree of B. Sc. from the General Science Course of this University, or from institutions making equivalent requirements for this degree, and also upon graduates from the College of Engineering of this University, upon the terms specified for the degree of Master of Arts; except that the major subject shall be taken in one of the Departments of Science in this (the Arts, Philosophy and Science) College. The minor subject shall be in an allied Science.

3. The degree of Master of Arts will be conferred upon candidates holding the degree of B. A. or B. Ph. and the degree of Master of Science upon candidates holding the degree of B. Sc. from this University, or from other institutions making equivalent requirements for these degrees, and the degree of Master of Science will be conferred on graduates from the College of Engineering of this University, on the completion, during not less than one year of residence, of a course of study in one or more of the departments of this College, not less than one-third of which course shall be graduate work and not more than two-thirds may be such undergraduate work as is announced to be elective, such course to be subject to the approval of the Executive Committee of the Faculty of this College. But a degree conferred under the provisions of this paragraph shall in no case be counted towards the degree of Doctor of Philosophy, or Doctor of Science.

4. With the consent of the Faculty the work of candidates for Master's degree may be distributed over more than one year.

5. Each candidate for a Master's degree must also prepare and submit a thesis, and, after its acceptance, be examined upon the work assigned him. The regulations as to undergraduate theses apply to theses for Master's degree also.

6. The degree of Ph. D., or of D. Sc., will be conferred upon holders of the appropriate baccalaureate degree from this University, or from other institutions making equivalent requirements for the first degree, upon the satisfactory completion of three years of resident graduate work in the Arts, Philosophy and Science College, including thesis and examinations. Holders of the degree of Master of Arts or Master of Science from this University, under the conditions prescribed in paragraph one or two, or from other institutions making equivalent requirements for these degrees, may receive the Doctor's degree on the satisfactory completion of two years of resident graduate work after obtaining the Master's degree. On approval of the Faculty, the work of the first year, or of the first two years, of the three, may be done at another University which offers equivalent graduate work.

7. Candidates for the degree of Doctor of Science shall take their work wholly in Science.

8. With the consent of the Faculty the work required of candidates for Doctor's degrees may be distributed over more than three years.

COURSE IN ARTS

Degree: Bachelor of Arts

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	hours Credit
Greek (51)	4.	Greek (52)	4.
Xenophon.		Herodotus, History.	
Latin (51)	4.	Latin (52)	4.
Cato, Cicero.		Livy, Horace.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Cadet Service (men).*		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

One of the following (the choice being for the year):

Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

* A rule of the Board of Trustees requires each male student (except students in the College of Law) to render two years' cadet service as a condition of graduation. Students physically incapacitated for cadet service will be assigned an equivalent in special gymnasium work. The President has authority to excuse from cadet service under certain conditions.

Young women are required to carry Hygiene and Physical Training in place of cadet service.

SECOND YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Greek (53)		4.	Greek (54)		4.
Lysias.			Homer.		
†History (55)	}		Economics (52)	}	
United States			Elementary		
or		4.	or		4.
†Economics (51)			History (56)		
Elementary.			United States.		
Latin (53)		4.	Latin (54)		4.
Horace, Pliny.			Tacitus, Juvenal.		
English Literature (51)		4.	Rhetoric (54)		4.
Introductory.			Analysis of Prose.		
Cadet Service (men).			Cadet Service (men).		
Hygiene and Phys. Train. (women).			Hygiene and Phys. Train. (women).		

THIRD YEAR

Philosophy (51)	4.	Philosophy (52)	4.
Psychology.		Logic and Ethics.	
*Major Study.	4.	Major Study.	4.

ELECTIVE

Eight hours a week through the year — chosen from the courses in this College; *except* that, not earlier than the third year, studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

FOURTH YEAR

*Major Study.	5.	Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the Senior year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

* Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in two allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

† The subject not taken the first Semester will be taken the second.

LATIN COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
French (51)	4.	French (52)	4.
Elementary, or		Prose and Plays or	
German (51)	4.	German (52)	4.
Elementary.		Elementary.	
Latin (51)	4.	Latin (52)	4.
Cato, Cicero.		Livy, Horace.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

One of the following (the choice being for the year):

Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (58)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

SECOND YEAR

French (55)	4.	French (56)	4.
Modern Literature or		Modern Literature or	
German (55)	4.	German (56)	4.
Literature.		Lyrics.	
*History (55)	4.	Economics (52)	4.
United States or		Elementary or	
*Economics (51)	4.	History (56)	4.
Elementary.		United States.	
Latin (53)	4.	Latin (54)	4.
Horace, Pliny.		Tacitus, Juvenal.	
*English Literature (51)	4.	Rhetoric (54)	4.
Introductory.		Analysis of Prose.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

* The subject not taken the first semester, to be taken the second semester.

THIRD YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Philosophy (51)		4.	Philosophy (52)		4.
Psychology.			Logic and Ethics.		
†Major Study.		4.	Major Study.		4.

ELECTIVE

Eight hours a week through the year — chosen from the courses in this College; *except* that, not earlier than the third year, studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

FOURTH YEAR

†Major Study	5.	†Major Study	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the Senior year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

MODERN LANGUAGE COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR

French	4.	French	4.
German	4.	German	4.
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

† Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in two allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

One of the following (the choice being for the year):

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Botany (57) Laboratory.	3.	Botany (58) Laboratory.	3.
Botany (56) Systematic and Physiological.	4.	Zoology (64)	4.
Chemistry (51) Inorganic.	3.	Chemistry (52) Inorganic.	3.
Physics (51) or (53) Mechanics, Heat, etc.	3.	Physics (52) or (54) Electricity, Magnetism, etc.	3.
Zoology (51) Comparative Zoology.	3.	Zoology (52) Comparative Zoology.	3.

SECOND YEAR

French	4.	French	4.
German	4.	German	4.
*History (55) United States or *Economics (51) Elementary.	} 4.	Economics (52) Elementary or History (56) United States.	} 4.
Rhetoric (53) Analysis of Prose.		English Literature (52) Introductory.	
Cadet Service (men). Hygiene and Phys. Train. (women).	4.	Cadet Service (men). Hygiene and Phys. Train. (women).	4.

THIRD YEAR

Philosophy (51) Psychology.	4.	Philosophy (52) Logic and Ethics.	4.
†Major Study.	4.	†Major Study.	4.

ELECTIVE

Eight hours a week through the year — chosen from the courses in this College; *except* that, not earlier than the third year, studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

FOURTH YEAR

†Major Study.	5.	†Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the Senior year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The

* The subject not taken the first semester, will be taken the second semester.

† Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in two allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

ENGLISH COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
French (51)	4.	French (52)	4.
Elementary		Prose and Plays	
or		or	
German (51)	3.	German (52)	3.
Elementary.		Elementary.	
History (51)	3.	History (52)	3.
European.		European.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Rhetoric and English Language (69)	2.	Rhetoric and English Composition (70)	2.
History of English.		Development of Prose.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

One of the following (the^a choice being for the year):

Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (56)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

SECOND YEAR

French (55)	4.	French (56)	4.
Modern Literature		Modern Literature	
or		or	
German (55)	4.	German (56)	4.
Literature.		Lyrics.	
*History (55)	4.	Economics (52)	4.
United States		Elementary	
or		or	
*Economics (51)	4.	History (56)	4.
Elementary.		United States.	
Philosophy (53)	3.	Philosophy (54)	3.
Rhetoric (53)	4.	English Literature (52)	4.
Analysis of Prose.		Introductory.	
Rhetoric and English Language (71)	2.	Rhetoric and English Language (72)	2.
Old English.		Old English.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

* The subject not taken the first semester, will be taken the second.

THIRD YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Philosophy (55)		3.	Philosophy (56)		3.
†Major Study.		4.	Major Study.		4.

ELECTIVE

Eight hours a week through the year — chosen from the courses in this College; *except* that, not earlier than the third year, studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

FOURTH YEAR

Major Study.	5.	Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the Senior year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN COMMERCE AND ADMINISTRATION

Degree: Bachelor of Philosophy

FIRST YEAR

French (51)	4.	French (52)	4.
Elementary.		Prose and Plays.	
German (51)	4.	German (52)	4.
Elementary.		Elementary.	
History (51)	3.	History (52)	3.
European.		European.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

† Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in two allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

SECOND YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
French (55)	4.	French (56)	4.
Modern Literature		Modern Literature	
or		or	
German (55)	4.	German (56)	4.
Literature.		Lyrics.	
*History (55)		Economics (52)	
United States	4.	Elementary	4.
or		or	
*Economics (51)		History (56)	
Elementary.	3.	United States.	3.
History (53)		History (54)	
England.		England.	
Rhetoric (53)	4.	English Literature (52)	4.
Analysis of Prose.		Introductory.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

One of the following (the choice being for the year):

Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
General Chemistry (51)	3.	General Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

THIRD YEAR

†Elementary Law	6.	†Contracts	4.
Philosophy (51)	4.	Philosophy (52)	4.
‡Major Study	4.	‡Major Study	4.

ELECTIVE

From the list of courses mentioned below, selection may be made to make up the required number of hours. Not less than sixteen nor more than eighteen hours a week are permitted and no substitutions or options further than those indicated below.

Economics { 53 55 57 }	2 or 3.	Economics { 54 56 58 }	2 or 3.
German	2 or 3.	German	2 or 3.
History { 57 59 }	2 or 3.	History { 58 60 }	2 or 3.
Political Science (51) (53)	2 or 3.	Political Science (52) (54)	2 or 3.
Rhetoric (57)	3.	Rhetoric (58)	3.
Romance Language	2 or 3.	Romance Language	2 or 3.

* The subject not taken the first semester will be taken the second semester.

† In place of Elementary Law six hours; Commercial Law four hours and Corporations (Private and Municipal) two hours may be substituted. Also in place of Contracts, four hours, any two of the following may be substituted: Corporations (Private), Insurance, Agency, Sales, Mortgages.

‡ See note page 79.

FOURTH YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
†Major Study.	5.	†Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the fourth year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN GENERAL SCIENCE

Degree: Bachelor of Science

FIRST YEAR

Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
French (51)	} 4.	French (52)	} 4.
Elementary		Prose and Plays	
or		or	
German (51)	} 3.	German (52)	} 3.
Elementary.		Elementary.	
Chemistry (51)		Chemistry (52)	
Inorganic.		Inorganic.	
Mathematics (67), (65)	} 4.	Mathematics (68), (66)	} 4.
Algebra, Analytics, Calculus		Trigonometry, Analytics, Calculus	
or		or	
Mathematics (55), (57)	} 5.	Mathematics (56), (58)	} 5.
Trigonometry and Algebra.		Algebra and Analytics.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

† Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in two allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

SECOND YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Economics (51)	4.	Rhetoric (54)	4.
Political Economy.		Analysis of Prose.	
†French	} 4.	French	} 4.
or		or	
‡German		German	
Physics (51)	3.	Physics (52)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Physiology (51)	3.	Physiology (52)	3.
Human Anatomy.		Physiology.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

Together with one of the following subjects, to be continued through the year:

(a) Botany (57), (58), each three hours credit or (59), (60), each five hours credit for a semester. (b) General Chemistry (53), (54), each five hours credit. (c) Geology (51), (52), and Metallurgy (52). Geology running for two-thirds of the year and Metallurgy for one-third; total, five hours credit for the year. (d) Mathematics (50), (61), (60), (62), each five hours credit for a semester. (e) Zoology (53), (54), each three hours credit, or (55), (56), each five hours credit.

THIRD YEAR

†Geology (if not taken the second year)	5.	Geology (if not taken the second year)	} 5.
General		General and	
or		**Astronomy (52)	
‡French or German	4.	General	
		or	
		**Astronomy (54)	
		Mathematical.	
Philosophy (53)	3.	Philosophy (54)	3.
*Major Study.	4.	Major Study.	4.

Elective: Four hours a week through the year—chosen from the courses in this College, *except* that not earlier than the third year:

First: Studies equivalent to five hours a week for one year may be chosen from any courses taught in the University; provided, that the studies chosen are such as the student is qualified to pursue.

Second: Additional studies equivalent to five hours a week for one year may be chosen in the College of Engineering.

† In the Second Semester, Geology is followed by Astronomy, which occupies the last nine weeks of the Semester.

* Major Study. Not later than the beginning of the Third Year each student shall elect a Major Study in Mathematics or in a Science in which Laboratory instruction is given. This Major Study shall be in one department, or with the consent of the professors in charge, in two allied departments in this college. To the Major Study the student shall devote not less than four nor more than ten hours a week during the Fourth Year.

‡ It is desired that the student on completing this course, shall possess a good reading knowledge of both French and German. Therefore, the student entering on both French and German will take both languages in the University, each for one year. He who enters on one Modern Language will continue that language one year in case he cannot read easy prose at sight and take the other language for one year. In case a reading knowledge of one Modern Language is possessed, the student will take the other language two years. The third year of Language in the case of students making the Mathematics a specialty will be that language of which the student has the less knowledge.

** Students who elect Mathematics as their Major Study shall, in the Third Year, take French or German four hours the first semester and Astronomy five hours the second semester instead of Geology five hours the first semester and Geology and Astronomy five hours the second semester.

FOURTH YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Major Study.		5.	Major Study.		5.
Electives.		10.	Electives.		10.

THESIS

As a requisite for graduation each student must present an acceptable thesis embodying the results of a special research. The line of research must lie within the field of the major study, and is subject to the approval of the professor or professors having the major study in charge; and the student shall enter on this work not later than the beginning of the Senior year, and shall devote to it not less than two hours a week, or its equivalent, for one year, independently of his other work. The subject of thesis, together with a written approval of it by the professor or professors directing the investigation, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day. In case two or more students are pursuing the same major study, a joint research and thesis may be made.

THE SPECIAL COURSES

COURSE PREPARATORY TO LAW AND TO JOURNALISM

FOR ADMISSION

The requirements for admission to any of the four year courses in the College of Arts, Philosophy and Science; except that the applicant must not be less than eighteen years of age.

FIRST YEAR

English Literature (51)	4.	Economics (52)	4.
Introductory.		Elementary.	
French (51)	} 4.	French (52)	} 4.
Elementary		Prose and Plays*	
or		or	
German (51)	} 4.	German (52)	} 4.
Elementary.		Prose and Plays.	
History (51)	3.	History (52)	3.
European.		European.	
Rhetoric (51)	2½.	Rhetoric (52)	2½.
English Composition.		English Composition.	
Science, Elective.	3.	Science, Elective.	3.
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

SECOND YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Economics (55)	2.	Economics (56)	2.
Practical Problems.		Industrial and Social Reforms. Principles.	
English Literature	2 or 3.	English Literature	2 or 3.
Elective.		Elective.	
History (53)	3.	History (54)	3.
England.		England.	
History (55)	4.	Rhetoric (54)	4.
United States.		Analysis and Prose.	
Philosophy (53)	3.	Philosophy (54)	3.
Psychology.		Logic.	
Rhetoric (55)	1.	Rhetoric (56)	1.
Newspaper work.		Newspaper work.	
Rhetoric (69)	2.	Rhetoric (70)	2.
History of English.		Development of Prose.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

NOTE—A student desiring to continue French or German may substitute French (55 and 56), or German (55 and 56), for four hours of the studies of the second year. The studies thus deferred must be taken in the third year.

THIRD YEAR

Not less than sixteen nor more than seventeen hours a week, including studies deferred from the second year; selections to be made from the following, subject to the conditions named in the "Departments of Instruction." In view of the fact that this is a special course for special purposes, no substitutions or options further than those indicated below, will be permitted.

Economics (57)	2.	Economics (56)	2.
The Transportation Problem.		Money and Banking.	
English Literature	2 or 3.	English Literature	2 or 3.
Elective.		Elective.	
History (61)	2.	History (62)	2.
American History.		American History.	
Education (57)	2.	Education (54)	2.
History of Education in the United States.		History of Education in the United States.	
Philosophy (55)	3.	Philosophy (56)	3.
Ethics.		Modern.	
Political Science (51)	2.	Political Science (52)	2.
International Law.		Municipal Government.	
Political Science (53)	3.	Political Science (54)	3.
Institutions of the U. S.		Comparative Institutions.	
Rhetoric (57)	3.	Rhetoric (58)	3.
Brief Making and Argument.		Brief Making and Argument.	
Rhetoric (59)	2.	Rhetoric (60)	2.
Poetics and Verse Making.		Short Stories.	

COURSE PREPARATORY TO THE STUDY OF MEDICINE

FOR ADMISSION

Applicants must be at least seventeen years old, and must pass in *Grammar, Geography, Arithmetic, Algebra (through quadratics), Plane and Solid Geometry, Physics, Rhetoric, U. S. History, and Botany, and either Astronomy, Civil Government or General History.*

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Botany (53) Systematic and Physiological.	4.	Botany (56) ($\frac{1}{2}$ Semester) Medical.	1.
Latin (59) Pharmaceutical.	5.	Latin (60) Pharmaceutical.	5.
Physics (53) Mechanics, Heat, etc.	3.	Physics (54) Electricity, Magnetism, etc.	3.
		Physics (60) Laboratory.	2.
		Physiology (58) ($\frac{1}{2}$ Semester) Microscopy.	1.
Rhetoric (51) English Composition.	2½.	Rhetoric (52) English Composition.	2½.
Zoology (51) Comparative.	3.	Zoology (52) Comparative.	3.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	

SECOND YEAR

French (51) Elementary or German (51) Elementary.	} 4.	French (52) Prose and Plays or German (52) Elementary.	} 4.
Chemistry (51) Inorganic.		Chemistry (52) Inorganic.	
Physiology (51) Human Anatomy.	3.	Physiology (52) Physiology.	3.
Rhetoric (63) Advanced Rhetoric.	2.	Rhetoric (64) Advanced Rhetoric.	2.
Zoology (55) Comparative Anatomy.	5.	Zoology (56) Comparative Anatomy.	5.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	

THIRD YEAR

French (53) Science Reading or German (53) Science Reading.	} 2.	French (54) Science Reading or German (54) Science Reading.	} 2.
Economics (51) Political Economy.			
Philosophy (53) Psychology.	3.	Philosophy (54) Logic and Ethics.	3.
Pharmacy (51) General.	3.	Pharmacy (52) General Laboratory.	5.
Physiology (55) Laboratory.	5.	Physiology (56) Laboratory.	5.

THE COLLEGE OF ENGINEERING

FOR ADMISSION TO THE FOUR-YEAR COURSES, AND TO THE COURSE IN ARCHITECTURE

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English (a)*—Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience. The second essay will be upon a subject drawn from the list of classics printed below.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition—Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below, and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics*—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro* and *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic class-room study of the texts themselves is the only adequate preparation. Literary history,

literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Taylor's Academic or equivalent.

4. *Civil Government*—Fiske or Thorpe preferred.

5. *Geometry, Plane and Solid*—Venable, Wentworth, White, or Wells.

6. *History*—Myers's General History.

7. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential), Cæsar, the first four books of the *De Bello Gallico*.

Or *French*—The whole subject of French Grammar. Applicants will be expected to read at sight easy French and to translate correctly into French simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The text read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

Or *German*—Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, *i. e.*, declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages): Joynes's or Whitney's Reader, Hillern's *Höher als die Kirche*, Riehl's *Der Fluch der Schönheit*, Freytag's *Die Verlorne Handschrift*, Gerstäcker *Irrfahrten*.

For the year 1899-1900 the German or French required for admission may be begun at the University, but without University credits.

8. *Physics*—Gage, Carhart and Chute, Avery or Appleton, complete.

NOTE—An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up this work in the Columbus High Schools, which are fully accredited by the University.

No student will be admitted to the College of Engineering who is in arrears more than fifteen hours, of which not more than five hours may be in Mathematics.

COURSE IN CIVIL ENGINEERING

This course is arranged for students expecting to become surveyors or civil engineers. The plan of the course is to give (1) a thorough training in mathematics and mechanics, (2) the general principles underlying all branches of civil engineering, (3) the application of the general principles to the several branches of civil engineering. The subjects of land, railroad and topographical surveying are important features, and students can at once begin practical work. In the engineering work special attention is given to iron and steel bridge work, masonry construction and cement testing, road and railroad building and maintenance, water supply and the subject of the collection and disposal of sewage.

FIRST YEAR

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand.	2.	Drawing (1) Freehand.	2.	Drawing (2) Lettering.	3.
French (1) or German (1)	4.	French (1) or German (1)	4.	French (1) or German (1)	4.
Chemistry (7) Inorganic.		Chemistry (7) Inorganic.		Metallurgy (2) Mineralogy.	
Mathematics (14) Trigonometry.	5.	Mathematics (15), (16) Trigonometry, Algebra.	2, 3.	Mathematics (17) Plane Analytics.	5.
Rhetoric (5) English Composition.	2½.	Rhetoric (5) English Composition.	2½.	Rhetoric (5) English Composition.	2½.
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Civil Engineering (1) Surveying.	6.	Civil Engineering (4) C. E. Drawing.	4.	Civil Engineering (2) Surveying.	6.
Drawing (3) Projections.	3.	Drawing (3) Descriptive Geometry.	5.	Drawing (3) Shades, Shadows & Per.	3.
Mathematics (18) Space Anal. & Calculus.	5.	Mathematics (19) Calculus.	5.	Mathematics (20) Calculus.	5.
Physics (2) Mechanics and Heat.	3.	Physics (2) Electricity & Magnetism.	3.	Physics (2) Light and Sound.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

SUMMER COURSE

Civil Engineering (22). Four weeks—six days per week. Field work in surveying and railroad construction.

THIRD YEAR

Civil Engineering (3) Surveying.	4.	Civil Engineering (5) C. E. Drawing.	3.	Astronomy (2) Mathematical.	4.
Mathematics (8) Least Squares.	2.	Civil Engineering (6) Stereotomy.	4.	Civil Engineering (7) Bridge Strains.	5.
Geology (2) General.	5.	Geology (2) General.	5.	Drawing (7) Photography.	2.
Mech. Engineering (6) Mechanics.	5.	Mech. Engineering (6) Mechanics.	5.	Mech. Engineering (7) Strength of Materials.	5.
Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.

SUMMER COURSE

Civil Engineering (23). Four weeks—six days per week. Field work in railroad and topographic surveying.

FOURTH YEAR

Astronomy (2) Mathematical.	4.	Civil Engin'g (16) or (17) Masonry, Railways.	5.	Civil Engineering (10) Sanitary Engineering.	5.
Civil Engineering (8) Bridge Designing.	5.	Civil Engineering (14) Testing Laboratory.	2.	Law of Contracts	4.
Civil Engineering (15) Masonry.	5.	Civil Engineering (18) Water Supply.	5.	Geology (3) Economic.	3.
Elec. Engineering. Lectures (6)	2.	Elec. Engineering. Lectures (6)	2.	Mech. Engineering (25) Laboratory.	3.
Laboratory (7)	2.	Laboratory (7)	2.		
		Mech. Engineering (17) Laboratory.	3.		

*VOLUNTARY

* French (3), two hours; or German (2), two hours; or Rhetoric (4), two hours; each for the year.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of Civil Engineering. The subject must be announced to the President of the University (dependent upon the approval of the head of the department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN MINE ENGINEERING

This Course is arranged for students intending to become mining engineers and surveyors, metallurgical or technical chemists. The plan of work, therefore, while keeping mathematics, drawing and engineering prominent, also provides extended work in applied chemistry, chemical analysis, assaying, mineralogy, geology, and surveying with especial application to mines and underground work, while the treatment of ores, both mechanical in ore dressing and chemical in metallurgy, forms an important feature.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
French (1)	} 4.	French (1)	} 4.	French (1)	} 4.
or		or		or	
German (1)		German (1)		German (1)	
Chemistry (7)	5.	Chemistry (7)	5.	Metallurgy (2)	3.
Inorganic.		Inorganic.		Mineralogy.	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections.		Descriptive Geometry.		Shades, Shadows & Per.	
Mathematics (18)	5.	Mathematics (19)	5.	Mathematics (20)	5.
Analytics and Calculus.		Calculus.		Calculus.	
Metallurgy (5)	5.	Metallurgy (5)	5.	Metallurgy (5)	5.
Laboratory.		Laboratory.		Laboratory.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity & Magnetism.		Light and Sound.	
Shopwork (7)	2.	Shopwork (11)	2.	Shopwork (4)	2.
Carpentry and		Forging.		Chipping and Filing.	
Pattern-making.					
Cadet Service.		Cadet Service.		Cadet Service.	

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each for the year.			

THIRD YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Mech. Engineering (6)	5.	Mech. Engineering (6)	5.	Mech. Engineering (7)	5.
Mechanics.		Mechanics.		Strength of Materials.	
Metallurgy (4)	5.	Metallurgy (4)	5.	Civil Engineering (19)	5.
Fuels and Iron.		Steel, Copper, Gold, etc.		Bridge Strains.	
Mine Engineering (4)	5.	Metallurgy (6)	5.	Metallurgy (8)	5.
Mine Surveying.		Assaying.		Deter. Mineralogy.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	

FOURTH YEAR

Elec. Engineering.		Elec. Engineering.		Geology (3)	5.
Lectures (6)	2.	Lectures (6)	2.	Economic.	
Laboratory (7)	2.	Laboratory (7)	2.		
Geology (2)	5.	Geology (2)	5.	Mine Engineering (6)	5.
General.		General.		Plans and Specifications.	
Mine Engineering (5)	5.	Metallurgy (7)	3.	Mine Engineering (5)	5.
Mine Engineering.		Metal. Construction.		Mine Engineering.	
Metallurgy (8)	2.	Mine Engineering (5)	5.	Drawing (7)	2.
Ore Dressing.		Mine Engineering.		Photography.	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of such study must lie within the field of Metallurgy or of Mine Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department) not later than the beginning of the second term of the fourth year; and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN MECHANICAL ENGINEERING

This Course has for its object the qualifying of men for the mechanical engineering profession. It aims to embrace preparation for such lines of pursuit as the successful management of machinery in manufacturing establishments; the superintendence of construction; the designing and laying out of machinery plants for mills and factories; the construction of machines for particular purposes, and the designing and drawing of the same, the making of calculations respecting strength, shocks, proportion, endurance, and suitability of material for specific purposes.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	8.
Freehand.		Freehand.		Lettering.	
French (1)	} 4.	French (1)	} 4.	French (1)	} 4.
or		or		or	
German (1)		German (1)		German (1)	
Chemistry (7)	5.	Chemistry (7)	5.	Shopwork (7)	4.
Inorganic.		Inorganic.		Carpentry & Pat'n Mak'g	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections.		Descr. Geometry.		Shades, Shadows & Per.	
Mathematics (18)	5.	Mathematics (19),	5.	Mathematics (20)	5.
Analytics and Calculus.		Calculus.		Calculus.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity & Magnetism.		Sound and Light.	
Shopwork (11)	3.	Physics (7)	2.	Physics (7)	3.
Forging.		Laboratory.		Laboratory.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	
Shopwork (3)	2.	Shopwork (4)	3.	Shopwork (13)	3.
Foundry.		Chipping and Filing.		Machine work.	
Cadet Service.		Cadet Service.		Cadet Service.	

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each for the year.			

THIRD YEAR

Drawing (5)	3.	Mech. Engineering (6)	5.	Drawing (7)	2.
Technical.		Mechanics.		Photography.	
Mathematics (11)	1.	Mech. Engineering (22)	3.	Civil Engineering (19)	5.
Differential Equations.		Timber and Masonry.		Bridge Strains.	
Mech. Engineering (6)	5.	Mech. Engineering (3)	5.	Mech. Engineering (7)	5.
Mechanics.		Mechanism.		Strength of Materials.	
Metallurgy (4)	5.	Metallurgy (4)	2.		
Fuels and Iron.		Steel.			
Shopwork (14)	3.	Shopwork (15)	4.	Mech. Engineering (3)	2.
Machine Work.		Advanced Machine		Mechanism.	
Mech. Engineering (12)	2.	Work.		Industrial Arts (6)	5.
Laboratory.				Machine Design.	

FOURTH YEAR

Elec. Engineering.		Elec. Engineering.		Industrial Arts (5)	3.
Lectures (6)	2.	Lectures (6)	2.	Shop Appliances.	
Laboratory (7)	2.	Laboratory (7)	2.		
Mech. Engineering (18)	4.			Mech. Engineering (10)	5.
Laboratory.				Steam Boilers.	
Mech. Engineering (8)	5.	Mech. Engineering (9)	5.	Mech. Engineering (15)	3.
Thermodynamics.		Prime Movers.		Laboratory.	
		Mech. Engineering (14)	4.	Mech. Engineering (20)	2.
		Laboratory.		Hydraulic Mach.	
Mech. Engineering (18)	5.	Mech. Engineering (18)	5.	Mech. Engineering (21)	5.
Mach. Design.		Mach. Design.		Thesis Work.	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of such study must lie within the field of Mechanical Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN ELECTRICAL ENGINEERING

The object of this Course is to prepare students for the various pursuits in which the applications of electricity are prominent. Physics, especially theoretical and applied electricity, and mechanical engineering are naturally the leading subjects of the Course. General theory is treated in ample breadth, and is tested by experiments in well equipped laboratories. The laboratories are so conducted as to afford the student a degree of facility in the use of instruments and machinery only acquired by continued practice.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
French (1)	} 4.	French (1)	} 4.	French (1)	} 4.
or		or		or	
German (1)		German (1)		German (1)	
Chemistry (7)	5.	Chemistry (7)	5.	Shop Work (7)	4.
Inorganic.		Inorganic.		Carpentry & Pat'n Mak'g	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections.		Descriptive Geometry.		Shade, Shadows and Per.	
Mathematics (18)	5.	Mathematics (19)	5.	Mathematics (20)	5.
Analytics and Calculus.		Calculus.		Calculus.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics.		Electricity, Magnetism.		Light, Sound.	
Physics (3)	2.	Physics (3)	2.	Physics (3)	2.
Problems.		Problems.		Problems.	
Shopwork (11)	2.	Physics (5)	4.	Physics (5)	4.
Forging.		Laboratory.		Laboratory.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	
Shopwork (4)	2.				
Chipping and Filing.					
Cadet Service.		Cadet Service.		Cadet Service.	

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each for the year.			

THIRD YEAR

Drawing (5)	3.	Mech. Engineering (3)	5.	Industrial Arts (6)	5.
Technical.		Mechanism.		Machine Design.	
Mathematics (11)	1.	Mech. Engineering (6)	5.	Mech. Engineering (16)	4.
Differential Equations.		Mechanics.		Laboratory.	
Mech. Engineering (6)	5.	Physics (6)	5.	Mech. Engineering (7)	5.
Mechanics.		Laboratory.		Strength of Materials.	
Physics (6)	3.	Shopwork (14)	3.	Physics (6)	5.
Laboratory.		Machine Work.		Laboratory.	
Physics (4)	3.				
Electricity & Magnetism.					
Shopwork (13)	3.				
Machine Work.					

FOURTH YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Elec. Engineering (2)	5.	Elec. Engineering (2)	5.	Elec. Engineering (2)	5.
Elec. Machinery.		Elec. Machinery.		Elec. Machinery.	
Elec. Engineering (3)	8.	Elec. Engineering (3)	3.	Elec. Engineering (3)	3.
Designing and Drawing.		Designing and Drawing.		Designing and Drawing.	
Elec. Engineering (4)	5.	Elec. Engineering (4)	5.	Elec. Engineering (4)	5.
Laboratory.		Laboratory and Thesis.		Laboratory and Thesis.	
Mech. Engineering (8)	5.	Mech. Engineering (9)	5.	Mech. Engineering (10)	5.
Thermodynamics.		Prime Movers.		Steam Boilers.	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the result of a special study. The subject of such study must lie within the field of Electrical Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the Department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN CERAMICS

This Course is designed to create a class of engineers who shall be fitted to render to the Clay, Glass and Cement Industries, the same kind of services which have long been rendered to Mining and Metallurgical Industries by graduates of Schools of Mines.

The problems of the Ceramic Industries are not unlike those of the Mining Industries, either in kind or in adaptation to methods of technical control; but the information and scientific equipment necessary to solve these problems successfully are peculiar to those industries alone, and in the past have received little or no attention from technical schools in this country.

This course is offered with the hope of filling this long standing gap in the scheme of engineering education in this country. It is essentially an Engineering Course, following closely the lines of the other engineering courses, up to the end of the second year. In the last two years, the training specializes along the lines of Ceramics and of the application of Chemistry to this subject.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
Chemistry (7)	5.	Chemistry (7)	5.	Metallurgy (2)	3.
Inorganic.		Inorganic.		Mineralogy.	
German (1) or (4)	4.	German (1) or (4)	4.	German (1) or (4)	4.
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

FIRST TERM		Credit	SECOND TERM		Credit	THIRD TERM		Credit
		hours			hours			hours
Ceramics (1)		5.	Ceramics (2)		5.	Ceramics (3)		5.
Laboratory.			Laboratory.			Laboratory.		
Drawing (3)		3.	Drawing (3)		3.	Drawing (3)		3.
Projections.			Descriptive Geometry.			Shades, Shadows & Per.		
Mathematics (18)		5.	Mathematics (19)		5.	Mathematics (20)		5.
Analytics and Calculus.			Calculus.			Calculus.		
Physics (2)		3.	Physics (2)		3.	Physics (2)		3.
Mechanics and Heat.			Electricity & Magnetism.			Light and Sound.		
Shopwork (7)		2.	Shopwork (11)		2.	Shopwork (4)		2.
Woodwork.			Forging.			Chipping and Filing.		
Cadet Service.			Cadet Service.			Cadet Service.		

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each through the year.			

THIRD YEAR

Ceramics (4)	5.	Ceramics (5)	5.	Ceramics (6)	5.
General Principles.		Bricks.		Pottery.	
Mine Engineering (4)	5.	Ceramics (7)	5.	Ceramics (8)	5.
Mine Surveying.		Advanced Chemical		Advanced Chemical	
		Laboratory Work.		Laboratory Work.	
Mech. Engineering (6)	5.	Mech. Engineering (6)	5.	Mech. Engineering (7)	5.
Mechanics.		Mechanics.		Strength of Materials.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	

FOURTH YEAR

Ceramics (9)	5.	Ceramics (10)	5.	Ceramics (11)	5.
Manufacture of Bodies.		Glasses and Glazes.		Enamels and Colors.	
Drawing (7)	2.	Ceramics (12)	5.		
Photography.		Cement.			
Geology (2)	5.	Ceramics (13)	2.	Ceramics (15)	5.
General.		Ceramic Construction.		Thesis Work.	
Metallurgy (4)	5.	Ceramics (14)	5.	Geology (3)	5.
Fuels and Iron.		Reports on Clay Prop.		Economic.	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of Ceramic Engineering. The subject must be announced to the President of the University (dependent upon the approval of the head of the Department), not later than the beginning of the second term of the fourth year; and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN INDUSTRIAL ARTS

This course is designed to furnish a strong basis for those wishing to become teachers of Manual Training, and for those intending to enter the various branches of manufacture and industry, not as engineers, but as practical managers, superintendents or business men. The required part of the course combines with a general science training a large amount of drawing and shop work, in which the underlying principles and methods employed in various branches of industry are

dwelt on. Large liberty of election of studies is allowed the student. His election, properly exercised, together with the required work will equip the student for a wide range of occupations along the lines stated. The aim of the course is educational as well as professional, the training of the mind and hand together.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
Chemistry (7)	5.	Chemistry (7)	5.	Metallurgy (2)	3.
Inorganic.		Inorganic.		Mineralogy.	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Plane Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Shopwork (7)	3.	Shopwork (8)	3.	Shopwork (9)	3.
Carpentry and Pattern Making.		Carpentry Cabinet Work.		Advanced Pattern Making.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections.		Descriptive Geometry.		Shades, Shadows & Per.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity.		Sound and Light.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	
Shopwork (3)	3.	Shopwork (11)	2.	Shopwork (12)	3.
Foundry.		Forging.		Advanced Forging.	
Cadet Service.		Cadet Service.		Cadet Service.	

Electives, six to eight hours—any work upon which the student is qualified to enter, in any College except the College of Law.

THIRD YEAR.

Drawing (5)	3.	Industrial Arts (2)	3.	Industrial Arts (2)	3.
Technical.		Technical Drawing.		Technical Drawing.	
Industrial Arts (1)	3.	Industrial Arts (1)	3.	Industrial Arts (1)	3.
Tools and Machines.		Tools and Machines.		Tools and Machines.	
Shopwork (4)	3.	Shopwork (13)	3.	Shopwork (14)	3.
Chipping and Filing.		Machine work.		Machine work.	

Electives, eight to ten hours—any work upon which the student is qualified to enter, in any College except the College of Law.

FOURTH YEAR

Industrial Arts (3)	3.	Industrial Arts (3)	3.	Industrial Arts (3)	3.
Shop Equipment.		Shop Appliances.		Shop Management.	
Industrial Arts (4)	3.	Industrial Arts (4)	3.	Industrial Arts (4)	3.
Technical Drawing.		Technical Drawing.		Technical Drawing.	
Shopwork (15)	3.	Shopwork (16)	3.	Shopwork (17)	3.
Advanced Machine Work.		Advanced Machine Work.		Advanced Machine Work.	

Electives, eight to ten hours—any work upon which the student is qualified to enter, in any College except the College of Law.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis embodying the results of a special study. The subject of such study must

lie within the field of Industrial Arts. The subject must be announced to the President of the University (dependent upon the written approval of the head of the Department), not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN CHEMISTRY

The object of this Course is to prepare students for work in Industrial Chemistry or Metallurgical Chemistry, according to electives chosen. With proper electives it will also be found a desirable course for students expecting to become general analytical chemists.

The electives are subject to the approval of the head of the department of Chemistry, or of Metallurgy and Mineralogy for students in Metallurgical Chemistry.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
Chemistry (7)	5.	Chemistry (7)	5.	Chemistry (12)	5.
Inorganic.		Inorganic.		Inorganic.	
German (1) or (4)	4.	German (1) or (4)	4.	German (1) or (4)	*4.
Mathematics (14)	5.	Mathematics (15), (16)	5.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Chemistry (4)	5.	Chemistry (4)	5.	Chemistry (4)	5.
Quantitative.		Quantitative.		Quantitative.	
German (2)	2.	German (2)	2.	German (2)	2.
Scientific Reading.		Scientific Reading.		Scientific Reading.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity & Magnetism.		Sound and Light.	
Shopwork (7)	3.	Shopwork (11)	3.	Metallurgy (2)	3.
Woodwork.		Forging.		Mineralogy.	
Cadet Service.		Cadet Service.		Cadet Service.	

Electives three to five hours throughout the year.

The following are suggested: Mathematics (18, 19, 20), 5 hours; Drawing (3), 3 hours; Physiology (3), 3 hours; History (5), 4 hours; Economics (1), 4 hours.

THIRD YEAR

Chemistry (8)	5.	Chemistry (9)	5.	Chemistry (9)	5.
Organic.		Organic.		Organic.	
Metallurgy (5)	5.	Metallurgy (6)	5.	Metallurgy (5)	5.
Laboratory.		Assaying.		Laboratory.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	

Electives five to eight hours throughout the year.

The following are suggested: Physical Laboratory, 3 to 5 hours; Geology, 5 hours—or Geology and Determinative Mineralogy, 5 hours; Shopwork, 3 hours.

FOURTH YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Chemistry (17)	4.	Chemistry (14)	3.	Chemistry (15)	4.
Inorganic Preparations.		Theoretical.		Sanitary.	
Metallurgy (4)	5.	Chemistry (16)	3.	Ceramics (16)	3.
Fuels and Iron.		Applied.		Applied.	
		Physiology (8)	2.		
		Bacteriology.			

Electives to make the total work equal sixteen or eighteen hours, including thesis work.

Students in Metallurgical Chemistry will take Ore Dressing the first term, and Metallurgy (4) 5, through the second term. For such students Chemistry (14, 15, 16) and Physiology (8) will not be compulsory.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of the study must lie within the field of Chemistry or Metallurgy. The subject must be announced to the President of the University (dependent upon the approval of the head of the department), not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN ARCHITECTURE

This Course was established in 1896, to meet a growing demand for special training along this line. The extremely rapid developments, in late years, of novel methods of construction, the constantly extending list of materials used, and the creations of types of buildings entirely without precedent in the history of architecture, render it not only desirable, but imperative, that a large class of thoroughly trained and equipped men shall be brought forward, if this progress is to be maintained.

The employment in architecture of so many young men trained in other branches of engineering seems to prove the urgent need of those whose training is directed expressly to this end.

The Course offered gives a good training in mathematics, physics and mechanics, which are fundamental, together with a thorough drill in drawing, designing, shopwork, and the more technical branches of architecture proper.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

Drawing (1)	3.	Drawing (1)	3.	Drawing (1)	3.
Freehand.		Freehand.		Water Color.	
Chemistry (7)	5.	Chemistry (7)	5.	Drawing (2)	3.
Inorganic.		Inorganic.		Lettering.	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Plane Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Shop Work (7)	3.	Shop Work (8)	3.	Shop Work (10)	3.
Carpentry and		Carpentry Cabinet Work.		Carpentry Building.	
Pattern Making.					
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (7)	2.	Architecture (1)	5.	Architecture (2)	5.
Photography.		Orders.		Styles.	
Drawing (8)	3.	Drawing (3)	5.	Drawing (3)	5.
Projections.		Descriptive Geometry.		Shades, Shadows & Per.	
Drawing (14)	2.	Drawing (12)	2.	Drawing (12)	2.
Pen.		Clay Modeling.		Clay Modelling.	
Greek (1)	2.	Greek (1)	2.	Greek (1)	2.
Ancient Art.		Ancient Art.		Ancient Art.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity & Magnetism.		Light and Sound.	
Mechanical Eng. (23)	5.				
Materials of Construct'n.					
Cadet Service.		Cadet Service.		Cadet Service.	

THIRD YEAR

Architecture (3)	5.	Architecture (3)	5.	Architecture (3)	5.
Designing.		Designing.		Designing.	
Architecture (4)	2.	Architecture (5)	3.	Architecture (6)	4.
Specifications.		Decorations.		Estimates.	
Civil Engineering (15)	5.	Architecture (7)	5.	Architecture (8)	5.
Masonry.		Heating.		Designing.	
Civil Engineering (20)	5.	Civil Engineering (6)	4.	Civil Engineering (21)	3.
Roof Trusses.		Stereotomy.		Surveying.	

REQUIREMENTS FOR ADMISSION TO THE SHORT COURSES IN MINING, IN CLAY-WORKING AND CERAMICS, AND IN INDUSTRIAL ARTS

Applicants must not be less than sixteen years of age; and unless they are over twenty-one years of age must pass an examination in Arithmetic, Geography, Grammar and Orthography, or bring High School or other certificates for these branches.

Applicants who are over twenty-one years of age are admitted without examination.

SHORT COURSE IN MINING

The Short Course in Mining is especially designed for young men who have had a practical experience in mines, and wish to study Mine Surveying, Drafting, the problems of Ventilation, Drainage, Haulage, Mine Operating, etc., and also something of the sciences bearing upon their work, but have neither the time nor the preparation for a full college course. The first year is devoted to a thorough study of the elementary mathematics and sciences necessary to prepare the student for the practical work of the second year. The experience of the past eight years has shown beyond any doubt that any enterprising young miner can master the subject sufficiently well in the time assigned to materially increase his earning capacity and chances for promotion in his occupation.

Personal instruction is given, and it is made thoroughly practical and of such a character as to best adapt it to the needs of the individual student.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Mathematics (2)	5.	Mathematics (2)	5.	Mathematics (2)	5.
Algebra.		Algebra.		Algebra.	
Mathematics (3)	5.	Mathematics (13)	5.	Mathematics (14)	5.
Plane Geometry.		Space Geometry.		Trigonometry.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	
Elementary.		Elementary.		Phys. Geography.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (1)	2.	Drawing (4)	3.	Drawing (2)	2.
Freehand.		Draughting.		Lettering.	
Drawing (3)	3.	Geology (4)	5.	Metallurgy (9)	5.
Projections.		Elementary.		Mineral Chemistry.	
Chemistry (7)	5.	Chemistry (13)	3.	Mine Engineering (3)	5.
Inorganic.		Laboratory.		Mine Operating.	
Mine Engineering (1)	5.	Mine Engineering (2)	5.	Shop Work (11)	3.
Mine Surveying.		Ventilation and Haulage.		Forging.	
Cadet Service.		Cadet Service.		Cadet Service.	

SHORT COURSE IN CLAY-WORKING AND CERAMICS

The two-year or Industrial Course is designed to assist young men who have already been actively engaged in the Ceramic industries, and who, on account of mature years, or lack of means, or lack of previous educational advantages, are unable to avail themselves of the full and complete course, and yet who wish to increase their earning power or chances of promotion by fitting themselves for other than routine labor. The requirements for admission to this course are very low, and the work required throughout is much less severe than that of the four-year course; in fact, anyone who is willing to really apply himself, can retain his membership in this class, but there is no place for any but those who are thoroughly in earnest, and poor work will not be accepted from those who are able to do good work.

In short, in this Industrial Course, the department recognizes its closest medium of communication with the wants of the clay industries, and it is intended to so maintain this course as always to render the greatest good to the greatest number.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

Chemistry (7)	5.	Chemistry (7)	5.	Chemistry (12)	5.
Inorganic.		Inorganic.		Analytical.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary.		Elementary.		Phys. Geography.	
Mathematics (1)	5.	Mathematics (3a)	5.	Shop Work (11)	3.
Algebra.		Plane Geometry.		Forging.	
				Shop Work (4)	2.
				Chipping and Filing.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Ceramics (1)	5.	Ceramics (2)	5.	Ceramics (3)	5.
Analysis of Limestones, etc.		Analysis of Clays.		Analysis of Glazes.	
Ceramics (4)	5.	Ceramics (5)	5.	Ceramics (6)	5.
Gen. Principles.		Bricks.		Pottery.	
Geology (2)	5.	Drawing (11)	5.	Geology (8)	5.
General.		Mechanical.		Economic.	
Cadet Service.		Cadet Service.		Cadet Service.	

SHORT COURSE IN INDUSTRIAL ARTS

This Course is primarily designed to extend the benefits of the same kind of training as that given in the four-year course in this subject to that class of young men who may be unable for any reason to undertake a course of four years' duration, but who aspire to become actively engaged in factory work. It has been the aim to give, in as condensed a form as possible, those studies which will most rapidly and easily be turned to practical account in manufacturing operations; such as drawing, shop work, use of machine, tools, etc., together with a grounding in the physics and mathematics which underlie these operations.

The Course will be found most valuable to young men already engaged in factory work, who find themselves limited from rising in their work on account of lack of technical education.

NOTE — The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

Drawing (1)	1.	Drawing (1)	1.	Drawing (1)	1.
Freehand.		Freehand.		Freehand.	
Drawing (8)	2.	Drawing (8)	2.	Drawing (2)	2.
Geometric.		Projections.		Lettering.	
Mathematics (2)	5.	Mathematics (2)	5.	Mathematics (2)	5.
Algebra.		Algebra.		Algebra.	
Mathematics (3)	5.	Mathematics (13)	5.	Mathematics (14)	5.
Plane Geometry.		Space Geometry.		Trigonometry.	
Shopwork (7)	3.	Shopwork (8)	3.	Shopwork (11)	3.
Carpentry and Pattern Making.		Carpentry Cabinet Work.		Forging.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections.		Descriptive Geometry		Shades, Shadows & Per.	
Industrial Arts (1)	3.	Industrial Arts (1)	3.	Industrial Arts (1)	3.
Tools and Machines.		Tools and Machines.		Tools and Machines.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary.		Elementary.		Phys. Geography.	
Shopwork (3), (4)	5.	Shopwork (13)	5.	Shopwork (15)	5.
Foundry and Chipping and Filing.		Machine Work.		Advanced Machine Work.	
Cadet Service.		Cadet Service.		Cadet Service.	

THE COLLEGE OF LAW

FOR ADMISSION

(Until September, 1901)

The following are the requirements:

1. *To the First Year*—Applicants for admission to the First Year must present satisfactory evidence (by teacher's certificate—High School, Academy or College diploma—or by examination) of having a good common school education, including *United States History*, *Civil Government* and a thorough training in *English Composition*.

2. *The Second Year*—In addition to the requirements for admission to the First Year, applicants for admission to the Second Year must present satisfactory evidence of having completed the work of the First Year or its equivalent.

3. *To the Third Year*—In addition to the requirements for admission to the Second Year, applicants for admission to the Third Year must present satisfactory evidence of having completed the work of First and Second Years, or its equivalent.

Students seeking a degree must, at the time of registration, present in addition to the requirements above mentioned satisfactory evidence of having completed a course of study, the minimum requirement of which is as follows:

Arithmetic, Civil Government, Geography, Grammar, History of the United States, Physical Geography, Physiology, Rhetoric, Physics, (Gage or an equivalent) *Geometry, Algebra*, (Wentworth's elements or an equivalent); and, in addition, the equivalent of 75 hours per week for one term of 12 weeks (a total of 900 hours) chosen from any five or more of the following subjects, one at least being a Science and two at least being in History or Political Science (unless the applicant is especially permitted to offer approved substitutes): *Botany, Chemistry, English Constitutional History, English History, English Literature, French, Geology, General History, German, Greek, Latin, Logic, Physics, Political Economy, Psychology, Surveying, Trigonometry, United States Constitutional History*; provided, that not less than 65 hours for twelve weeks (a total of 780 hours) of this work shall be of collegiate or university grade. If this last mentioned work has been done by the candidate in a College or University of good standing, certificates of such institution will be accepted. In all other cases the candidate is subject to examination on the work required from this last group. In general, in the absence of satisfactory certificates, opportunity will be given for examination in any subject required for admission as above indicated. Blanks for applications for degrees will be furnished on request.

FOR ADMISSION¹

(On and after September, 1901)

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English (a)*—Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience. The second essay will be upon a subject drawn from the list of classics printed below.

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition—Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below, and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) English Classics—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro* and *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Taylor's *Academic* or equivalent.

4. *Botany*—Kellerman's *Elementary Botany* and *Spring Flora*.

5. *Civil Government*—Fiske or Thorpe preferred.

6. *Geometry, Plane and Solid*—Venable, Wentworth or Wells.

7. *History*—Either Myers's *General History* (or equivalent); or, if the teacher's training and the school library will warrant, Greek and Roman History on the topical method. A circular concerning the topical method will be sent on application.

8. *Physics*—Carhart and Chute, Gage, Avery, or Appleton.

9. Any two of the following languages, in the quantity indicated below. Latin, Greek, French or German, or any one of them and the group of subjects named under (c) below.

(a) *Latin* — Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*; Cicero, six orations, including *Pro Lege Manilia*; Vergil, the first six books of the *Aeneid*, with Prosody; Prose Composition, Daniell or Collar or Jones, entire.

(b) *Greek* — Grammar (Goodwin's preferred) and Prose Composition; or the first 100 lessons of White's Beginner's Greek Book. Reading: The first four books of Xenophon's *Anabasis*. At least two years should be devoted to this work.

(c) *French* — The whole subject of French Grammar. Applicants will be expected to read at sight easy French and to translate correctly into French simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The text read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

(d) *German* — Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, i. e., declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages): Joynes's or Whitney's Reader, Hillern's *Höher als die Kirche*, Riehl's *Der Fluch der Schönheit*, Freytag's *Die Verlorne Handschrift*, Gerstäcker *Irrfahrten*.

(e) While the preferred requirement is that each candidate shall offer any two of the foregoing languages, he will be permitted to offer in place of one of the two the following group:

1. *Chemistry* — Williams' or Remsen's.

2. *Physiology* — Martin's (briefer course).

3. *English Literature* — Pancoast's Introduction to English Literature and an acquaintance with representative works in each period; or, *English History* — Montgomery.

In addition to the foregoing requirements for admission to the work of the College, each candidate for a degree must submit satisfactory evidence that he has successfully pursued a course of study equivalent to the first two years of any course leading to a degree in the College of Arts, Philosophy and Science, of this University. Where this work has been done in a college or university of approved standing, the certificate of said college or university will be accepted. In all other cases the candidate will be subject to examination in such work.

COURSE IN LAW

FIRST YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Elementary Law (including Domestic Relations)	15		Agency	2	
			Contracts	4	
			Criminal Law	3	
			Sales	2	
			Torts	4	
		15			15

TEXT BOOKS

First Semester — Elementary Law (Robinson, Walker and Blackstone).

Second Semester — Agency (Mechem); Contracts (Bishop); Criminal Law (Hawley); Sales (Tiedeman); Torts (Cooley).

SECOND YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Bailments	4	Construction of Contracts.....	2
Commercial Law	4	Evidence	2
Evidence	2	Partnership	2
Pleading	4	Pleading	2
Moot Court	1	Real Property	4
		Wills	2
		Moot Court	1
	15		15

TEXT BOOKS

First Semester—Bailments (Hale); Commercial Law (Tiedeman); Evidence (Underhill or Greenleaf); Pleading (Phillips).

Second Semester—Construction of Contracts (Jones); Partnership (Parsons); Real Property (Tiedeman); Wills (Schouler).

THIRD YEAR

Circuit and Supreme Court Practice.....	1	Corporations (Private).....	2
Constitutional Law }	4	Corporations (Municipal), Negligence of	2
International Law }		Ethics	1
Corporations (Private).....	2	Federal Practice.....	2
Corporations (Municipal).....	2	Insurance	2
Equity Jurisprudence.....	4	Mortgages }	2
Probate Law.....	2	Suretyship }	2
Moot Court.....	1	Trial Practice.....	2
		Moot Court.....	1
	16		14

Thesis for graduation to count for two hours through second semester.

TEXT BOOKS

First Semester—Constitutional Law (Black); Private Corporations (Taylor); Municipal Corporations (Tiedeman); Equity Jurisprudence (Fetter).

Second Semester—Ethics (Sharswood); Insurance (Richards); Negligence of Municipal Corporations (Jones); Suretyship (Baylies).

PURPOSE AND METHODS

It is the purpose of this College to furnish such legal training as will secure the most favorable judgment of the profession, and such as will fit students for practice in any part of the country.

The aim is to teach an accurate knowledge of the principles of the law, and to illustrate the application of these principles to the practical affairs of life—to teach students both to know and to apply the law. The instruction offered includes a Course containing three years of nine months each. It requires about fifteen hours of lecture and recitation work per week each year, and embraces all the elementary and practical studies necessary for admission to the Bar of any State administering the Common Law.

The methods of instruction combine the advantages of all approved systems and appliances—the text-book and recitation system, the lecture system, and the case system. Charts, outlines, analyses, essays, note-taking, oral and written lectures, reviews and examinations are used; and exercises are given in drafting contracts, abstracts, conveyances, wills, protests, mercantile contracts, pleadings, indictments, and other legal papers. Briefs, arguments in moot courts, etc., are required. Attention is given to the study and accurate analysis of leading cases.

GENERAL REGULATIONS

IRREGULAR STUDENTS

In special cases, students who have had part of the studies of the First Year and part of those of the Second Year, or part of those of the Second Year and part of those of the Third Year, may be examined on whatever subjects they may select and may take part of the studies of both years, if the Faculty is satisfied that the applicants can do so to advantage. If candidates for a degree, such applicants must meet all the other requirements and have all the other qualifications of those seeking a degree.

SPECIAL STUDENTS

Persons wishing a knowledge of legal principles *for business purposes only*, but not intending to apply for a degree or to take a full course, may be admitted at any time as special students, and may avail themselves of such advantages of the College as they may deem expedient. Their convenience will not be taken into consideration in arranging classes, and they must make satisfactory arrangements as to fees, hours of recitation, etc., with the Dean.

ENTRANCE EXAMINATIONS

Entrance examinations, except for those seeking a degree, will not be technical; the object being to ascertain the results of previous training and practical capacity to appreciate the technical study of the law. All entrance examinations will be conducted in writing.

APPLICATIONS FOR DEGREES

At the time of registration all applicants who seek degrees should present their diplomas and certificates of work done. These certificates should state in detail the studies pursued, the text-books used, the amount of work done in each study, the amount of time devoted to it, the date of the examination, and the rank or standing of the candidate in it. A copy of the course of study should accompany the certificate in all cases, and must accompany it where equivalents are offered. These statements should also be accompanied by information as to age, occupation, experience, and work done since leaving school. Blanks for application will be furnished on request.

EXAMINATIONS

Examinations are held from time to time to test the student's knowledge of the work he has gone over. They are usually written, but sometimes oral.

THESIS

Each candidate for a degree is required to prepare and deposit with the Faculty, at least six weeks before the end of the year of graduation, a thesis of not less than fifteen hundred nor more than five thousand words, exclusive of citations of authorities, upon some subject selected by himself with the approval of the professor giving instruction in that division of law from which the subject is chosen.

DEGREES

The degree of Bachelor of Laws (LL. B.) will be conferred on all who, being at least twenty-one years of age and having met the requirements necessary for entrance for a degree, pass satisfactorily the examinations at the close of the Senior year, after having done at least one year's work in the College of Law at the University, and having presented a thesis acceptable to the Faculty.

The degree of Master of Laws will be conferred upon any one who has received the degree of Bachelor of Laws at this University, or other approved University or College, upon completing the studies of the Graduate year, and satisfactorily passing an examination therein, and presenting a satisfactory thesis; the subject of which has been chosen from the field included in the Graduate year.

CERTIFICATES OF WORK DONE

Those who have completed the studies of the College, but have not complied with the requirements for a degree, will be given an official certificate, showing the work done, and signed by the President of the Board of Trustees, the President of the University, and the Dean of the College of Law.

ADMISSION TO THE BAR

The regular Supreme Court examination for the admission to the bar is held on the first Tuesday in June of each year. Seniors, if eligible, are recommended to take this examination.

COURSE OF INSTRUCTION

The Course of Study is three years of nine months, or thirty-six weeks, each; covering about fifteen hundred hours of work. It is so arranged that each class will have an average of three recitations a day, each one hour in length, thereby doing the same amount of work that is done in a regular University course.

MOOT COURT

Second Year and Third Year students will have Moot Court, under the supervision of the Dean, throughout the year, not less than one hour each week. The object of Moot Court is to give practical insight into the conduct of trials, examination of witnesses, production of evidence, etc.

ADVANTAGES

LOCATION

Attention is called to Columbus as a place in which to study law. Here the Legislature meets. Here are the Supreme Court and Circuit Court; four branches of the Common Pleas Court, in almost daily session throughout the college year; the Probate Court, the County Commissioners, the City Court, the several Magistrates' Courts; also the U. S. Circuit and District Courts. All are easy of access from the College. "There is no place where law is learned so quickly and thoroughly as among the lawyers. No teaching is so effective as the object lessons of the trial of cases in court."

LIBRARIES

The following libraries are accessible to the student:

The Law Library of the College contains the Noble Law Library, the Emerson McMillin Law Library, the Critchfield Law Library, and three sets of the Ohio and the Ohio State Reports; about 2,500 well selected volumes. It is shelved with the other Libraries of the University, in Orton Hall.

The University Library contains 25,000 volumes of very carefully selected books upon all subjects. This is quite complete in the more recent standard works upon history and political science, philosophy, etc. A good collection of the leading scientific, technical and literary magazines and journals is to be found here.

The State Law Library, of about 15,000 volumes — the largest and most complete Law Library in the State. It contains complete sets of the English, Scotch, Irish, Canadian, United States, and State Reports, Statutes and Digests, as well as all the important text books and leading periodicals published. This library is located in the State House, and because of the small space available must be used with great care and discretion in order that all may be served. It is designed wholly for reference, and students are warned that they must not use the library rooms as a study room, and that the text books found here are to be used for reference only. No student is expected, nor will he be permitted, to use these books instead of providing himself with those required in the course.

The State Library, in the State House — a library of general literature, history, science, biography, political and social science, philosophy, etc., comprising some 65,000 volumes. The leading magazines, journals, etc., are also to be found here.

The University Libraries are open from 7:30 A. M. to 9:30 P. M. during the five days in which the University is in session, and on Saturdays from 8 A. M. to 4 P. M. The State Law Library is open six days in the week, from about 8:30 A. M. to 5:30 P. M., with the exception of about an hour or an hour and a half at noon. The State Library is open six days in the week from 9 A. M. to 12 M., and from 2 P. M. to 5 P. M.; and when the Legislature is in session, from 7 P. M. to 9 P. M.

The City Library may also be used by students, under reasonable restrictions.

THE UNIVERSITY COURSES

Attention is called to the great advantage of attending a law school in close and vital connection with the University affording the means of a liberal, practical and technical education. Students who are disposed to work faithfully may, at the same time that they are acquiring a technical knowledge of the law, supplement their general education by joining University classes, in departments which they may elect, subject to the requirements for admission to such departments, without extra charge except for laboratory work. Not alone from the courses in History and Political Science, or from those in Mental and Moral Philosophy, should this work be selected, but also from the courses in Civil, Mine, Mechanical, and Electrical Engineering, from the courses in Anatomy and Physiology, Economic Geology, etc. To the average practitioner, there will come ten questions involving the principles of surveying or engineering to one of the constitutional law or English history. Not a day passes in the litigation of the courts but that numerous questions of anatomy, physiology, surveying or engineering arise and are to be decided. Particular attention, therefore, is called to the technical courses offered by the University, which will be open to those in the College of Law who are able to take them without interfering with the required law work. The following departments offer courses which will prove beneficial to those who have not had

such training as would enable them to take more technical work: Botany, Physiology, Physics, Civil Engineering, Mine Engineering, Chemistry (Toxicology), Geology, Philosophy, History, English.

EXPENSES

Each student of the University is required to pay an incidental fee of fifteen dollars a year, and in this College a tuition fee of forty-five dollars; a total of thirty dollars for each semester, which is payable at the beginning of each semester.

A fee of five dollars (to cover the expenses of graduation, diplomas, etc.) is charged to all who take the degree of Bachelor of Laws, and a fee of ten dollars is charged to those taking the degree of Master of Laws. These fees must be paid before the degrees are conferred.

Good boarding and lodging, convenient to the University, can be obtained at from \$3.50 to \$5.00 per week.

For information as to the cost of text-books used, address L. T. Williams, Ohio State University, Columbus.

Please send names and addresses of law students, and requests for printed matter, to W. F. Hunter, Dean, 18 Board of Trade, Columbus, Ohio; or to the Executive office, Ohio State University, Columbus.

THE COLLEGE OF PHARMACY

FOR ADMISSION TO THE FOUR-YEAR COURSE¹

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English (a)* — Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience. The second essay will be upon a subject drawn from the list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises — paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition — Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in four types — description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below, and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics* — Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro* and *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words,

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

phrases and figures, to reproduce thought, to point out characteristics of style. Systematic class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Taylor's Academic or equivalent.
4. *Botany*—Kellerman's Elementary Botany and Spring Flora or equivalent.
5. *Civil Government*—Fiske or Thorpe preferred.
Or *History*—Myers's *General History*.
6. *Geometry, Plane and Solid*—Venable, White, Wentworth or Wells.
7. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential), Cæsar, the first three books of the *De Bello Gallico*:

Or *German*—Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, *i. e.*, declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs, and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages): Joynes's or Whitney's Reader, Hillern's Höher als die Kirche, Riehl's Der Fluch der Schönheit, Freytag's Die Verlorne Handschrift, Gerstäcker Irrfahrten.

For the present, the *German* required for admission may be begun at the University, but without University credits.

8. *Physics*—Carhart and Chute, Gage, Avery, or Appleton.

COURSE IN PHARMACY

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

Degree: Bachelor of Science in Pharmacy

FIRST YEAR

FIRST TERM		SECOND TERM		THIRD TERM	
	Credit hours		Credit hours		Credit hours
Chemistry (7)	5.	Chemistry (7)	5.	Chemistry (12)	5.
Inorganic.		Inorganic.		Qualitative Analysis.	
Latin (1)	5.	Latin (1)	5.	Latin (1)	5.
Pharmaceutical		Pharmaceutical		Pharmaceutical	
or		or		or	
German (1)	4.	German (1)	4.	German (1)	4.
Elementary.		Elementary.		Elementary.	
Mathematics (14)	5.	Mathematics (15), (16)	5.	Mathematics (17)	5.
Plane Trigonometry.		Spherical Trigonometry,		Plane Analytics.	
		Algebra.			
Rhetoric (5)	2½.	Rhetoric (5)	2½.	Rhetoric (5)	2½.
English Composition.		English Composition.		English Composition.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

SECOND YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Botany (6a)	5.	Botany (4)	2.		
Systematic, Physiological.		Medical.			
Chemistry (4)	5.	Chemistry (4)	5.	Chemistry (4)	5.
Laboratory.		Laboratory.		Laboratory.	
German (2)	2.	German (2)	2.	German (2)	2.
Science Reading.		Science Reading.		Science Reading.	
Pharmacy (6)	3.	Pharmacy (7)	5.	Pharmacy (8)	5.
General Processes.		U. S. Pharmacopeia.		Dispensaries, etc.	
Physics (11)	3.	Physics (11)	3.	Physics (11)	3.
Mechanics and Heat.		Electricity & Magnetism.		Sound and Light.	
				Metallurgy (2)	3.
				Mineralogy.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

THIRD YEAR

Pharmacy (9)	5.	Pharmacy (10)	5.	Pharmacy (11)	5.
General Processes.		Prescriptions.		Dispensaries, etc.	
Pharmacy (12)	3.	Pharmacy (13)	2.	Pharmacy (14)	3.
Materia Medica.		Materia Medica.		Mat. Medica and Thera.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Human Anatomy.		Physiology.		Physiology.	
General Chemistry (8)	5.	Physiology (8)	2.	Physiology (5)	2.
Organic.		Bacteriology.		Microscopy.	
		General Chemistry (9)	5.	General Chemistry (9)	5.
		Organic.		Organic.	

FOURTH YEAR

Geology (2)	5.	Geology (2)	5.	General Chemistry (11)	4.
General.		General.		Toxicology.	
Pharmacy (15)	5.	Pharmacy (17)	5.	Pharmacy (17)	5.
Assaying.		General.		General.	
Thesis.		Thesis.		Thesis.	

Chemistry elective for the year—five hours.
 Elective, three hours through the year.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis, embodying the results of special study and research. The subject must be within the field of Pharmacy, and must be announced to the President of the University (dependent upon the written approval of the proper authorities) not later than the beginning of the second term of the fourth year of the Course. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

SHORT COURSE IN PHARMACY

FOR ADMISSION

Candidates for admission who are less than twenty-one years of age must be prepared in the common English branches. Teachers' certificates (in force), or credentials from approved schools, will be accepted in lieu of an examination.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Chemistry (7)	5.	Chemistry (7)	5.	Botany (1)	5.
Inorganic.		Inorganic.		Elementary.	
Latin (1)	5.	Latin (1)	5.	Chemistry (12)	5.
Pharmaceutical.		Pharmaceutical.		Qualitative Analysis.	
Physics (1)	5.	Physics (1)	5.	Latin (1)	5.
Elementary.		Elementary.		Pharmaceutical.	
Pharmacy (6)	3.	Pharmacy (7)	5.	Pharmacy (8)	5.
General Processes.		U. S. Pharmacopeia.		Dispensaries, etc.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

SECOND YEAR

Botany (6a)	5.	Botany (4)	2.	Chemistry (11)	4.
Systematic, Phys.		Medical.		Toxicology.	
Chemistry (18)	5.	Chemistry (18), (19)	5.	Chemistry (19)	5.
Laboratory.		Laboratory.		Laboratory.	
Pharmacy (9)	5.	Pharmacy (10)	5.	Pharmacy (11)	5.
Phar. Chemistry.		Prescription Practice.		Dispensing Practice.	
				Physiology (1)	3.
				Physiology.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (5)	2.
Human Anatomy.		Physiology.		Microscopy.	
		Physiology (8)	2.		
		Bacteriology.			
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

COLLEGE OF VETERINARY MEDICINE

FOR ADMISSION¹

The following are the requirements:

I. For applicants for certificates of Veterinary Surgeon: *Arithmetic, Geography and Grammar.*

II. For applicants who intend to become candidates for the degree of Doctor of Veterinary Medicine:

1. *Arithmetic, Grammar, and Descriptive and Physical Geography.*
2. *English Composition and Rhetoric*—Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from a list of classics which will be furnished on application.
3. *History*—History of the United States, Johnson preferred.
4. *Latin or German*—One year.
5. *Physics*—Gage, Carhart and Chute, Avery, or Appleton.
6. *Botany*—Kellerman's Elementary Botany and Spring Flora or equivalent.

COURSE IN VETERINARY MEDICINE

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

Degree: Doctor of Veterinary Medicine

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Ag. Chemistry (1)	5.	Ag. Chemistry (8)	5.	Ag. Chemistry (9)	5.
Principles.		Organic.		Applications.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Human Anatomy.		Physiology.		Physiology.	
Physiology (4)	5.	Physiology (4)	5.	Physiology (4)	5.
Histology.		Histology.		Phys. Chemistry.	
Veterinary Medicine (11)	5.	Vet. Medicine (12)	5.	Vet. Medicine (13)	5.
Osteology.		Myology, etc.		Dissections, etc.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Agriculture (8)	4.	Agriculture (9)	4.	Agriculture (10)	4.
Breeds of Live Stock.		Stock Breeding.		Stock Feed'g & Hygiene.	
Pharmacy (12)	5.	Pharmacy (13)	5.	Pharmacy (18)	5.
Materia Medica.		Materia Medica.		Laboratory.	
Vet. Medicine (14)	5.	Vet. Medicine (15)	5.	Vet. Medicine (16)	5.
Gen. Pathology.		Gen. Pathology.		Special Pathology.	
Vet. Medicine (19)	3.	Vet. Medicine (18)	5.	Vet. Medicine (18)	5.
Clinic.		Surgical Diseases.		Surgical Diseases.	
Vet. Medicine (24)	5.	Vet. Medicine (19)	3.	Vet. Medicine (19)	3.
Gen. Surgery.		Clinic.		Clinic.	
Cadet Service.		Cadet Service.		Cadet Service.	

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

THIRD YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Vet. Medicine (20)	3.	Vet. Medicine (21)	3.	Vet. Medicine (22)	5.
Special Pathology.		Special Pathology.		Therapeutics.	
Vet. Medicine (19)	3.	Vet. Medicine (25)	3.	Vet. Medicine (19)	3.
Clinic.		Practice in Operating.		Clinic.	
Vet. Medicine (27)	5.	Vet. Medicine (19)	3.	Vet. Medicine (26)	5.
Meat Inspection.		Clinic.		Horse Shoeing.	
Vet. Medicine (18)	5.	Physiology (6)	3.	Vet. Medicine (33)	2.
Surgical Diseases.		Bacteriology.			
Vet. Medicine (31)	3.	Vet. Medicine (23)	3.	Thesis.	
		Obstetrics.			
		Vet. Medicine (32)	3.		
		Thesis.			

THE SUMMER SCHOOL

By action of the Board of Trustees and of the Faculty, a Summer School has been established in the University and placed under the general supervision of the President and Faculty. The immediate supervision of the work of the school is vested in a committee of the Faculty, consisting of the President of the University, a Dean of the Summer School, and the heads of departments which offer courses in the Summer School. The session of the Summer School of 1898 began June 20 and closed July 30, covering a period of six weeks.

COURSES OF INSTRUCTION¹

In the following list of courses the number of "hours" indicate the number of class exercises each week, whether lectures, recitations or laboratory work.

BOTANY

- A. **ELEMENTARY BOTANY**—Single or double Course. Recitations, lectures, and laboratory work. Kellerman's Elementary Botany will be used as a text, and any one of the Manuals. Herbarium of fifty plants required. Those taking the double course will be required to make an additional herbarium illustrating the various classes of plants 5 or 10 hours
- B. **ADVANCED BOTANY**—Special work in Systematic Botany, Experimental Physiology, or the Evolution of plants. Lectures and laboratory work. No text-book required. Laboratory fee \$1.00 for single, \$2.00 for double course..... 5 or 10 hours

¹ The courses for 1899 have not yet been determined. The courses printed herein are given to illustrate the general scope of the school. They cover the work done in 1898.

- C. **CYTOLOGY AND SPECIAL METHODS** — Lectures and laboratory work. Karyolimesis and embryology, with special method of imbedding and staining material for original investigation. No text book required. Laboratory fee \$1.00 for single, \$2.00 for double course
..... 5 or 10 hours

CHEMISTRY

- A. **PRINCIPLES OF CHEMISTRY**— Lectures..... 5 hours
B. **QUALITATIVE ANALYSIS**—Laboratory fee \$4.00..... 10 hours
C. **QUANTITATIVE ANALYSIS**—Laboratory fee \$4.00..... 10 hours

ENGLISH COMPOSITION, LANGUAGE, RHETORIC

- A. **TEACHERS' COURSE** — Lectures, conferences, prescribed readings, and reports on the teaching of composition, grammar and rhetoric in the secondary schools. Some of the subjects discussed will be as follows: Class-room method and procedure; the place of the text-book; plans for courses in the secondary schools; plans for lessons; the essay problem; the teacher's necessary equipment; how much grammar; school grammar against historical grammar; the relations between composition and the study of English Classics; the order of topics; the function of criticism; a review of the work of the Committee of Ten and of the English Conferences; a review of recent text-books. "Hinsdale's Teaching the Language Arts" will be used as a starting point for some of the discussions..... 5 hours
B. **PRACTICE COURSE** — Daily compositions, written for the most part in class, to be criticised closely by the instructor, and including the sketch, the criticism, the book review, the short story, the news article, and the brief and argument, with preliminary lecture on each of these types of composition. Text-book. Scott & Denney's Composition-Rhetoric. This course is equivalent to University course No. 51..... 5 hours
C. **ANALYSIS OF PROSE** — A study of specimens of English prose with reference to the principles of Rhetoric which they illustrate. Text-book: Genung's Rhetorical Analysis.

ENGLISH LITERATURE

- A. **FOUNDATION STUDIES IN ENGLISH LITERATURE**—A course for teachers consisting of lectures, with illustrative readings. Most of the lectures will deal with the books read and the way in which they should be studied with classes in the secondary schools. A few lectures will be given on the following subjects: The chief aim of the teacher of English Literature; class-room method and procedure; the order in which the prescribed English Classics should be studied; the functions of histories of English Literature and of the English and German critics; plans for courses and lessons; a fair division of the time allotted to English..... 5 hours
B. **TEACHERS' COURSE IN PREPARATORY CLASSICS** — In this course the classics appointed for the examination of 1899 will be studied, beginning with Scott's *Ivanhoe*. This Course is an enlargement of Course A, and is open only to those who take that course..... 5 hours

- C. **TEACHERS' COURSE IN SHAKESPERE** — Beginning with the Merchant of Venice 5 hours

FRENCH

- A. **ELEMENTARY COURSE** — Survey of Grammar; rapid reading; drill in pronunciation. The object of this course is to furnish the beginner with the essentials of the language. Text-book: Joyne's Minimum French Grammar and Reader..... 5 hours
- B. **TEACHERS' COURSE** — An advanced course for teachers and others possessing a reading knowledge of French. The work will include: (1) special training in pronunciation, conversation, dictation and translation from English into French to secure a practical command of the language; (2) lectures on methods of teaching French, and the teacher's equipment..... 5 hours

GEOLOGY

- A. **GENERAL INORGANIC GEOLOGY** — Emphasizing especially Geographical and Lithographical Geology. Students will be encouraged to make and label rock collections. Excursions will be made to surrounding points for study of water action and ice action..... 5 hours
- B. **HISTORICAL GEOLOGY** — This course, which is supplementary to Course A, will include lectures and laboratory work, the latter predominating. The lectures will treat of the growth of the North American continent and the development of plant and animal life. The laboratory course will consist of study of typical groups of Ohio fossils... 5 hours
- If desired, a short field excursion of two or three days will be made after the close of regular term.

GERMAN

- A. **OUTLINE OF GERMAN GRAMMAR** — A comparative study of German and English Grammar, designed especially for teachers, and for more mature beginners who are at home in English Grammar. Reading of Gueber's "Märchen und Erzählungen." Double course..... 10 hours
- B. **READING OF GERMAN PEDAGOGICAL WORKS** — This course is based upon the work done in Individual and Scientific Psychology. Some such books as Keber's "Zur Philosophie der Kindersprache," or Lobisch's "Die Seele des Kindes," will be read. For advanced students only 5 hours
- C. **GERMAN LITERATURE** — An outline course with supplementary reading; for students with one or more year's preparation..... 5 hours

GREEK

- A. **ELEMENTARY COURSE** — For beginners. Text-book: Gleason and Atherton's First Greek Book.
- B. **XENOPHON'S ANABASIS** — Books I, II or III. Especially adapted for those who need to complete their preparation for college. Industrious and capable students may possibly arrange for a double course in Xenophon.
- Work satisfactorily done may be counted towards admission to the University.

HISTORY

- A. **AMERICAN HISTORY** — Political History of the Colonies and of the United States. 1750-1820, Hart's "Formation of the Union" used as a basis. Recitations and lectures. Specially designed for teachers 5 hours

LATIN

- A. **CICERO'S ORATIONS** — With special emphasis upon grammatical forms, idiomatic translation, Latin Prose Composition, and Roman History 5 hours
- B. **VERGIL'S ÆNEID** — With careful attention to poetic forms, prosody, mythology, Roman life and customs..... 5 hours
- If the demand warrants, a second class will be formed to do additional reading in Cicero or Vergil. Work satisfactorily done may be counted towards admission to the University.

MATHEMATICS

- A. Courses will be offered in Algebra, Geometry, Trigonometry; also in such higher Mathematics for which there may appear sufficient demand. A special class will be formed for the critical examination of text-books in Mathematics used in the public schools of Ohio.

PHYSICAL TRAINING

- A. **TEACHERS' COURSE** — Swedish gymnastics adaptable to public school work 5 hours
- B. A course of gymnastics progressing from the light free-hand work to elementary apparatus work. Gymnastic and out-of-door games.... 5 hours

PEDAGOGY

- A. **INDIVIDUAL AND GENETIC PSYCHOLOGY**— Lectures, demonstrations and seminars reviewing the studies of children and of adults with special reference to their relations to educational questions. Laboratory practice in testing the senses, motor ability, etc. A single course 5 hours

PHILOSOPHY AND PSYCHOLOGY

- A. **PSYCHOLOGY** — Dr. Scott. Text-book, lectures and discussions. For teachers and those intending to teach. A single course, one hour daily; or a double course, two hours daily..... 5 or 10 hours
- A. **PHYSIOLOGICAL AND EXPERIMENTAL PSYCHOLOGY**— Mr. Wissler. Lectures and demonstrations supplemented by laboratory practice. A general course aiming at an exposition of psychological, psychophysical and inductive methods of psychological research. A single course, one hour daily; or a double course, two hours daily. Laboratory fees \$1.00..... 5 or 10 hours

PHYSICS

- A. **DOUBLE COURSE**, in elementary Physics, either through Kinetics and Heat, or through Electricity, Magnetism, Sound and Light..... 10 hours
 B. **SINGLE COURSE**, in laboratory practice; along lines depending on ends in view 5 hours
 C. **DOUBLE COURSE**, in laboratory, as above..... 10 hours
 D. **SPECIAL COURSE**, to make up deficiencies in preparation or record in elementary Physics.
 Fees in any single course, \$1.00.

ZOOLOGY AND ENTOMOLOGY

VERTEBRATE AND INVERTEBRATE MORPHOLOGY — Classes will be formed to suit applicants — as far as possible.

SUMMER LIBRARY SCHOOL

This school was under the direction of Dr. G. E. Wire, formerly of Columbia College Library, New York, and lately of the Newberry Library, Chicago.

This school gave a fifteen hour course, one hour being devoted to cataloging, one hour to classification and one hour to other forms of library work. This class work was in the morning, leaving the afternoon for individual and practice work.

Under cataloging was considered, not only author and subject cataloging, but also accessioning, shelf-listing, preparation of books for the shelves and preparation of finding lists and special lists. Classification took up largely the decimal classification, but instruction was offered in the expansive classification.

The miscellaneous heads included book selection and buying, book binding and repair, purchase and care of periodicals, care of pamphlets and clippings, public document, stock-taking, arrangement and care of rooms, shelves, fittings and supplies, charging systems, stack and open shelves, rules and regulations, reference and reading room work, children's rooms, school work, library legislation, traveling libraries, library associations and periodicals.

To make the course of benefit to as many people as possible, those who intended taking the course specified what they particularly wanted. These preferences were considered, as it is the wish to benefit directly the largest number possible. Aside from the technical work, arrangements were made whereby all interested in library work received advice and instruction in their own peculiar problems. This was planned particularly for library trustees and officers of Women's Clubs, and others who were desirous of some help along their own lines of work.

A portion of each day was devoted to personal work. The Director had a separate hour for his work. In many cases the problems were of so peculiar and so personal a nature as not to admit of class treatment. The director was accessible including lectures at least eight hours a day.

Fees were \$15 for the full course. Special rates for part of the course. Cataloging supplies, such as slips, accession and shelf list sheets were furnished.

THE DEPARTMENTS

The Departments

1900-1901

The subjects set forth under each Department limit and define the administrative authority and responsibility of the head of that Department.

AGRICULTURE

[TOWNSHEND HALL]

*Professor Hunt, Associate Professor Gibbs, Assistant Professor Noyes,
Mr. Herrick, Mr. Ruhlen*

- 8¹ **BREEDS OF LIVE STOCK.** Lectures and recitations three times a week upon the history, characteristics, adaptation, care and management of the different breeds of domestic animals. Practicum once a week in scoring and judging live stock. First term.
9. **PRINCIPLES OF BREEDING.** Lectures and recitations three times a week upon the laws of heredity and their practical applications. Practicum once a week in scoring and judging live stock, and in writing and tracing pedigrees. Second term.
10. **STOCK FEEDING AND HYGIENE.** Lectures and recitations three times a week upon the laws of nutrition, the character of food stuffs, the relation of the food to the animals, and the kind and quality of food to produce given effects. Practicum once a week in calculating digestibilities, nutritive ratios and feeding standards. Third term.
11. **FARM EQUIPMENT.** Lectures and recitations three times a week upon selecting, planning and equipping farms; planning and erecting farm buildings and fences; building roads; farm vehicles and machinery; power, water and drainage. Practicum once a week in drawing plans of farms and farm buildings; leveling and laying drains; dynamometer tests of wagons and farm implements. First term.
12. **SOILS.** Lectures and recitations three times a week upon the origin, formation, kinds, and physical properties of soils, and their improvement by cultivation, fertilization, drainage, and irrigation. Practicum once a week in laboratory testing physical properties of several soils, determining the relation of soils to heat, moisture, air, and fertilizers, and making mechanical analysis. Second term.
13. **FARM CROPS.** Lectures and recitations three times a week upon the history, production, marketing, cultivation, and harvesting of farm crops. Practicum once a week with growing and dried specimens of farm crops, including grasses, clovers, and other forage crops. Third term.

¹These numbers are "finding numbers," and do not necessarily indicate the sequence of topics.

14. **ANIMAL MECHANICS AND EXTERIOR.** Lectures and recitations three times a week upon animal mechanics, proportions, and the relation of the latter to specific uses. Practicum once a week in measuring animals and testing the value of given measurements for given purposes. First term.
15. **BUTTER MAKING AND CHEESE MAKING.** Recitations twice a week. Laboratory practice two half days each week in running separators, churning and working butter, making cheese, and testing and pasteurizing milk. Second term.
16. **HISTORY OF AGRICULTURE AND RURAL ECONOMICS.** Lectures and recitations upon the history of agriculture; present agricultural methods in various countries; cost and relative profits of various farm operations and systems. Four times a week. Third term.
5. **DAIRY FARMING.** Lectures once a week upon breeds, and upon feeding, breeding and selecting dairy stock; equipment and management of dairy farms. Practicum once a week in scoring and judging live stock, writing pedigrees, and calculating feeding standards. Second term.
6. **BUTTER MAKING AND CHEESE MAKING.** Practice in running separators, churning and working butter, etc., making cheese and testing and pasteurizing milk. Four half days each week. Second term.
7. **BUTTER MAKING AND CHEESE MAKING.** Lectures and recitations. Two hours each week. Second term.

AGRICULTURAL CHEMISTRY

[TOWNSHEND HALL, Rooms 29, 35, 34 and 30]

Professor Weber, Mr. Vinson

1. **PRINCIPLES OF CHEMISTRY AND CHEMICAL NOMENCLATURE.** Lectures and textbook for three or four weeks, five times a week; then lectures twice a week on Chemistry of Non-metals, and laboratory practice three times a week. First term.
8. **ORGANIC CHEMISTRY.** Lectures twice a week; laboratory practice three times a week. Second term.
9. **APPLICATION OF CHEMISTRY TO AGRICULTURE.** Lectures twice a week; laboratory three times a week. Third term.
4. **LABORATORY.** Analysis of fertilizers, feed-stuffs, dairy products, fruits, vegetables, alcoholic liquors, etc. Five laboratory periods a week through the year.
7. **CHEMISTRY OF MILK AND MILK TESTING.** Twice a week. Dairy Course.
6. **LABORATORY.** Five times a week through the year.

AMERICAN HISTORY AND POLITICAL SCIENCE

(See History.)

ANATOMY AND PHYSIOLOGY

[BIOLOGICAL HALL, Rooms 12 and 20]

Professor Bleile, Assistant Professor Morrey, Mr. Dresbach

COLLEGES OF AGRICULTURE, PHARMACY, AND VETERINARY MEDICINE

1. **HUMAN ANATOMY AND PHYSIOLOGY.** Lectures, recitations and laboratory work three times a week. First, second and third terms. This course must be preceded by, or accompanied with, a course of chemistry.

2. **GENERAL PHYSIOLOGY.** Lectures, recitations and demonstrations. Three times a week. Third term. [Short Course in Agriculture.]
3. **CHEMICAL PHYSIOLOGY.** Five times a week. Third term. [Domestic Economy Course.]
4. **HISTOLOGY AND HISTO-CHEMISTRY.** Five times a week through the year. This course must be preceded by, or accompanied with, a course in chemistry.
5. **MICROSCOPY AND URINARY ANALYSIS.** Lectures and laboratory work. Twice a week. Third term.
6. **BACTERIA,** in their relation to Milk, Butter and Cheese. Lectures and laboratory work. Twice a week. Second term.
7. **BACTERIOLOGY.** Three times a week. Second term. [Veterinary Medicine.]
8. **BACTERIOLOGY.** One lecture, one laboratory period, a week. Second term. [Pharmacy.]
9. **PHYSIOLOGICAL LABORATORY.** Three times a week. [May include work in bacteriology.]

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

- 51¹. **HUMAN ANATOMY AND PHYSIOLOGY.** Lectures, recitations and laboratory work. Three times a week.
53. **PHYSIOLOGICAL LABORATORY.** Three laboratory periods a week.
55. **PHYSIOLOGICAL LABORATORY.** Five laboratory periods a week.
57. **BACTERIOLOGY.** One lecture, one laboratory period a week.
59. **HISTOLOGY AND HISTO-CHEMISTRY.** Laboratory. Five laboratory periods a week.
61. **BACTERIOLOGY.** One lecture, two laboratory periods a week.

Second Semester

52. Continuation of Course 51. Three times a week.
54. Continuation of Course 53. Three laboratory periods a week.
56. Continuation of Course 55. Five laboratory periods a week.
58. **MICROSCOPY.** Lectures and laboratory work. Twice a week. Last half of semester.
60. Continuation of Course 59. Five laboratory periods a week.

ANCIENT ART

(See Greek Language and Literature.)

ARCHITECTURE

(See Drawing.)

¹ Finding numbers " from 51 upwards always indicate Semester work.

ASTRONOMY

[EMERSON McMILLIN OBSERVATORY]

Associate Professor H. C. Lord, Mr. Maag

COLLEGE OF ENGINEERING

2. **ASTRONOMY AND GEODOSY.** Lectures on practical Astronomy, supplemented by practice with the instruments of the Emerson McMillin Observatory. Text-book, Doolittle. Four times a week. Third and first terms.
3. **METEOROLOGY.** Twice a week. Third term. [Agriculture and Horticulture.]

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

52. **GENERAL ASTRONOMY.** Lectures and recitations. Five times a week. Second half, second semester.
54. **MATHEMATICAL ASTRONOMY.** Five times a week. Second semester. Consult Professor Lord.
- 55, 56. **THEORETICAL ASTRONOMY.** Lectures and Observatory practice. The theory of the undisturbed motion of a planet or comet and the calculation of ephemerides. Parabolic orbits from three complete observations. Orbits from three complete observations, including the eccentricity. Work in the Observatory with the twelve-inch equatorial. Definite orbits. Observatory work continued. Authorities: Watson, Klinkerfeus, Appolzer and the astronomical journals. Five times a week through the year.
- 57, 58. **ASTRO-PHYSICS.** Lectures on the theory of the Spectroscope and its use in Astronomy, supplemented by practice with the large spectroscope of the Observatory. Five times a week through the year.
Astronomy 55, 56, 57 and 58 are open only to students who have had Calculus.
60. **METEOROLOGY.** Twice a week. Second half, second semester.

BOTANY

[BOTANICAL HALL]

Professor Kellerman, Mr. Schaffner, Mr. Collett

COLLEGES OF AGRICULTURE, PHARMACY, AND VETERINARY MEDICINE

1. **ELEMENTARY BOTANY.** Lectures, recitations and field work. Text-book: Kellerman's *Elementary Botany* and *Spring Flora*. Must precede all other courses in this department except course 9. Five times a week. Third term.
4. **MEDICAL BOTANY.** Twice a week, second term. Similar to course 56 in the College of Arts, Philosophy and Science. Reference book: Maisch's *Organic Materia Medica*.
6. **PHYSIOLOGICAL BOTANY.** Lectures, recitations, and laboratory work. Barnes' *Plant Life*. Five times a week. First term.
- 6a. **SYSTEMATIC AND PHYSIOLOGICAL BOTANY.** Lectures, recitations and laboratory work. Barnes' *Plant Life*. Five times a week. First term.
7. **PHYSIOLOGICAL AND ECONOMIC BOTANY.** Lectures, recitations and laboratory work. Barnes' *Plant Life*. Five times a week. Second term.

8. **VEGETABLE PATHOLOGY.** Lectures, recitations and laboratory work. Five times a week. Third term.
9. **DENDROLOGY.** Lectures, field and laboratory work. Twice a week, first term. Open to students who have not studied Botany.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. Similar to Course 1 in College of Agriculture.
53. Similar to Course 6a in College of Agriculture. Four times a week.
55. **SYSTEMATIC AND PHYSIOLOGICAL BOTANY.** Lectures, recitations, laboratory and field work. Barnes' *Plant Life*. Four times a week.
57. **LABORATORY WORK.** Fungi, Algae, Bryophyta. Two or three times a week.
59. **ADVANCED LABORATORY WORK IN HISTOLOGY AND PHYSIOLOGY.** Five times a week. Open to students who have taken Course 53 or 55.
61. **SYSTEMATIC BOTANY. PHENOGAMIC AND CRYPTOGAMIC.** Three to five times a week. Open to students who have taken Course 53 or 55.
63. **MONOGRAPHIC WORK.** Graduate Course. Credit five or ten hours.
65. **RESEARCH WORK IN MORPHOLOGY AND PHYSIOLOGY.** Graduate Course. Credit five or ten hours.

Second Semester

56. **MEDICAL BOTANY.** Laboratory work. Maisch's *Organic Materia Medica*. Twice a week. First half of semester. This course must be preceded by Course 53.
58. Continuation of Course 57. Pteridophyta, Gymnospermae, Angiospermae. Two or three times a week.
60. Continuation of Course 59. Five times a week.
62. Continuation of Course 61. Three to five times a week.
64. Continuation of Course 63. Credit five or ten hours.
66. Continuation of Course 65. Credit five or ten hours.

CHEMISTRY

[CHEMICAL HALL, Rooms 24, 25, 14, 21, 22, 7 and 18]

*Professor McPherson, Professor Norton, Assistant Professor Henderson,
Mr. Kohr, Mr. Gore*

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **ELEMENTARY CHEMISTRY.** Arranged for students who have little or no knowledge of Chemistry. Three sub-divisions; one lecture, one quiz, and three hours' laboratory practice weekly. In the laboratory the student performs an extended series of experiments illustrating the principles of Chemistry. Three hours credit.
53. **QUALITATIVE ANALYSIS.** Laboratory, lectures and quiz. Students familiarize themselves with the properties of the elements with a view to their detection, and then apply this knowledge to analysis of unknown substances. Three to five times a week. This course must be preceded by Courses 51 and 52.

55. **QUANTITATIVE ANALYSIS.** Laboratory, lectures and recitations. Use of the balance and general principles of gravimetric analysis. Drill in the solution problems in quantitative analysis; study of properties of precipitates; principles of volumetric analysis. Selections are made from such analytical methods as best meet the needs of the student. The samples used for analysis are mixtures or commercial products the percentage composition of which is not made known to the student until he has reported his own results. Five times a week.
57. **ORGANIC CHEMISTRY.** Laboratory, lectures and recitations. Open only to students who are familiar with at least the principles of quantitative analysis. Five times a week.
59. **ADVANCED CHEMISTRY.** Laboratory. Arranged for special students who have had courses 53, 54, 55, 56, 57; also course 58 for students in Organic Chemistry. Students are allowed to select such work as they are capable of undertaking — as, the critical examination of analytical methods as well as the study of new methods. Five times a week.
- 61a. **INORGANIC PREPARATION.** Laboratory. This course includes the preparation of inorganic substances from the crude materials. Special attention is given to the preparation of chemically pure compounds, to be used in certain quantitative processes. Thorpe's text-book on Inorganic Preparations is used, and reference is made to Bender and Erdmans' *Anorganische Präparate* and Krauche's *Prüfung Chemischer Reagentien*. This course must be preceded by quantitative analysis. Four times a week until the Christmas Recess.
- Students electing this course must follow with theoretical chemistry and sanitary analysis.
- 61b. **PHYSICAL CHEMISTRY.** Lectures and recitations. A course of twelve weeks beginning after the Christmas Recess. Four times a week.
63. **CHEMICAL SEMINARY.** Special students will meet to discuss special topics and reviews of current literature. Once a week.
65. **ELECTROLYTIC ANALYSIS.** Laboratory. Extended practice is given in quantitative electrolytic analysis. Twice a week.

Second Semester

52. Continuation of Course 51. Three hours' credit.
54. Continuation of Course 53, including use of Spectroscope.
56. **QUANTITATIVE ANALYSIS.** Continuation of Course 55. Five times a week.
58. **ORGANIC CHEMISTRY.** Laboratory. Continuation of Course 57. Arranged for students who wish to specialize in organic chemistry. The course includes further preparation of typical organic compounds and organic combustions. Five times a week.
60. Continuation of Course 59.
64. Continuation of Course 63.
66. Repetition of Course 55.
68. **SANITARY ANALYSIS.** Laboratory and Lectures. A study of the most important chemical methods for the analysis of water and air. This course must be preceded by quantitative analysis, and at least the equivalent of Course 61 in Anatomy and Physiology (bacteriology). The course extends over the last ten weeks of the second semester.

Students who can elect but one year of Analytical Chemistry, will take Courses 53 and 66. Others will take 53 and 54, then follow with 55, 56 and 57.

COLLEGES OF ENGINEERING AND PHARMACY

7. **ELEMENTARY CHEMISTRY.** Inorganic, Lecture, Laboratory and Quiz. Laboratory work; First Term, experiments upon the non-metals; Second Term, principles of qualitative analysis. Five times a week. First and Second Terms. (All four-year Engineering Courses, and long and short Courses, Ceramics, Mine Engineering and Pharmacy.)
12. **QUALITATIVE ANALYSIS.** Five times a week. Third term.
13. **QUALITATIVE ANALYSIS.** Three laboratory periods a week. Second term. (Short Course in Mining.)
4. Similar to Courses 55 and 56. Five times a week through the year.
8. **ORGANIC CHEMISTRY.** Lectures. Five times a week. First term.
9. **ORGANIC CHEMISTRY.** Laboratory. Similar to Course 58. Five times a week. Second and third terms.
11. **TOXICOLOGY.** Lectures. Poisons—their effects, antidotes and detection. Four times a week. Third term.
14. **THEORETICAL CHEMISTRY.** Lectures and Recitations. Three times a week. Second term.
15. **SANITARY ANALYSIS.** Similar to Course 68. Four times a week. Third term.
16. **APPLIED CHEMISTRY.** Lectures on Industrial Chemistry. These are made as practical as possible by visits to different chemical works. When possible specialists deliver lectures on subjects belonging to their particular line of work. Three times a week. Second term.
17. **INORGANIC PREPARATIONS.** Similar to Course 61. Four times a week. First term.
18. Similar to Course 57.
19. Similar to Course 66.

For Courses in the technical analysis of iron, steel and allied products, see the Department of Mining and Metallurgy.

For Courses dealing with the application of Chemistry to Agriculture, see the Department of Agricultural Chemistry.

CIVIL ENGINEERING

[HAYES HALL, Rooms 14 and 19]

Professor Brown, Assistant Professor Sherman

1. **LAND SURVEYING.** Recitations and field work. Johnson's Theory and Practice of Surveying. Six times a week. First term. Second year.
2. **RAILROAD SURVEYING.** Recitations and field work. Searle's Field Engineering. Six times a week. Third term. Second year.
3. **TOPOGRAPHICAL SURVEYING.** Lectures, field work and drawing. Johnson's Surveying used for reference. Four times a week. First term. Third year.
4. **TOPOGRAPHY.** Platting, pen and tinted work. Reed's Topographical Drawing and Sketching. Four times a week. Second term. Second year.
5. **WORKING DRAWINGS IN RAILWAY CONSTRUCTION.** Lectures and drawing and estimates of simple structures. Three times a week. Second term. Third year.
6. **STEREOTOMY.** Recitations, drawing and model cutting. Warner's Stereotomy. Four times a week. Second term. Third year.

7. **BRIDGE STRAINS.** Recitations and lectures. Part I of Dubois's Strains in Framed Structures. Five times a week. Third term. Third year.
8. **BRIDGE DESIGNING.** Lectures and drawing. Part II of Dubois's Strains in Framed Structures and Johnson's Modern Framed Structures used for reference. Five times a week. First term. Fourth year.
10. **SANITARY ENGINEERING.** Lectures. Five times a week. Third term. Fourth year.
14. **CIVIL ENGINEERING LABORATORY.** Cement testing, adjustment of instruments. Twice a week. Second term. Fourth year.
15. **MASONRY CONSTRUCTION.** Recitations and lectures. Baker's Masonry Construction. Five times a week. First term. Fourth year.
16. **HIGHWAYS.** Lectures on roads, streets, canals, railroads and rivers. Five times a week. Second term.
Fourth year students in Civil Engineering must elect either 16 or 17.
17. **RAILWAY LOCATION.** Recitations and lectures. Wellington's Economic Theory of Railway Location. Five times a week. Second term.
Fourth year students must elect either 16 or 17.
18. **WATER SUPPLY.** Recitations and lectures. Fanning's Water Supply. Five times a week. Third term. Fourth year.
19. **TRUSSES.** Lectures and drawing. Five times a week. Third term.
Third year, Mine Engineering and Mechanical Engineering.
20. **ROOF TRUSSES.** Lectures and drawing. Five times a week. First term.
Third year, Architecture.
21. **SURVEYING.** Recitations and field work. Davies' Surveying. Three times a week. Third term.
Third year, Architecture.
22. Summer Course in Surveying. Following the Second Year. This Course begins on Thursday after Commencement and runs for four weeks of six days per week. The class will be taken in camp and will devote all their time to the practice of land and elementary railroad surveying, and to the computations, drawings and reports necessary to such work.
The Course is open to students who have credit for Courses 1 and 2. Students having conditions in Courses 1 or 2 may take the Course with the permission of the head of the department.
23. Summer Course in Surveying. Following the Third Year. This Course begins on Thursday after Commencement and runs for four weeks of six days per week. The class will be taken in camp and will devote all their time to the study and practice of advanced railroad surveying and to the various kinds of topographical surveying and to the making of computations, drawings and reports necessary to such work. This Course is a continuation of Course 22 and must be preceded by Courses 3 and 22.
The Course is open to students who have credit for Courses 3 and 22. Students having conditions in Courses 3 or 22 may take Course 23 with the permission of the head of the department.

CLAY WORKING AND CERAMICS

[ORTON HALL, Rooms 18, 27, 26 and 25]

Professor Edward Orton, Jr., Mr. Bleininger

1. **QUANTITATIVE ANALYSIS OF SIMPLE MINERALS.** This course is open only to those who have completed General Chemistry. The student begins the quantitative analysis of salts and chemicals, and later works on limestone and other easy minerals. Five times a week. First term.

2. Continuation of Course 1. The student begins the quantitative analysis of clays and complex minerals, working first on samples of known composition, and later on unknown materials. Five times a week. Second term.
3. Continuation of Course 2. The student completes the ultimate analysis of clays, and begins the proximate or "Rational" analysis of clays and pottery bodies, following the methods of Seger. Five times a week. Third term.
4. **A SERIES OF LECTURES** (supplemented by frequent recitations) on the origin, composition and properties of clays and other minerals employed in the clay, glass, and cement industries. Five times a week. First term. Laboratory work in the physical testing of clays, and in their mechanical analysis.
5. Continuation of Course 4. A series of lectures, with recitations, on the general principles of the manufacture of bricks and the coarser clay wares, including the selection and winning of the materials, their preparation, manufacture, burning and testing. Five times a week. Second term.
6. Continuation of Course 5. A series of lectures, with recitations on the classification and manufacture of pottery and the finer grades of clay wares, including the selection of materials, preparation of the bodies, manufacture of the ware, preparation of the glazes, burning and decoration of the wares, and the pyrometry of ceramics. Five times a week. Third term.
7. Continuation of Course 3. Open only to those who have completed that course. The analysis of glasses and glazes, devoting special attention to the use of hydrofluoric acid in silicate analysis, and to the determination of lead and boracic acid. Five times a week. Second term.
8. Continuation of Course 7. The further analysis of colored glasses and glazes, enamels, and ceramic colors, especial attention being given to the determination of the coloring and opacifying oxides. Five times a week. Third term.
9. **LABORATORY WORK IN CERAMICS.** Open only to those who have completed Courses 3 and 6. The student will first undertake the production of such wares as are made from single clays, such as bricks for building and paving purposes; then those wares whose bodies are made by blending two or more natural clays, such as firebrick and refractory materials, earthenwares, stonewares, and yellow wares; and lastly, such wares as are made by the building up of an artificial body, such as is used in the production of white wares, porcelain, and in glazed and encaustic tiles. In each case the bodies made will be made into appropriate wares, burnt, and tested as to quality. Five times a week. First term.
10. Continuation of Course 9. The student will practice on the production of glasses and glazes, beginning with the natural "slip glazes," and taking successively the soft raw-lead glazes, the fritted lead-boracic-acid glazes, and the hard-fire leadless porcelain glazes. In each case the glazes will be made for use on some definite body, and will be made to "fit" it accurately. Five times a week. Second term.
11. Continuation of Course 10. The student will practice on the use of the coloring and opacifying oxides on glazes, and on the production of vitrifiable colors for the underglaze and overglaze decoration of pottery, and in the production of body-stains for encaustic wares. Five times a week. Third term.

12. A series of lectures on the manufacturing and testing of natural and Portland cements and hydraulic silicates. Open to students who have had courses 3 and 6. Facilities for laboratory work in making, burning, and testing cements will be given. Five times a week. Second term.
13. Practice in making drawings and specifications for brick kilns, brick dryers, pottery kilns, gas producers, glass pot-furnaces, glass tanks, cement kilns, and burning cylinders. Students will be allowed to specialize along the lines they intend to follow. Twice a week. Second term.
14. **MINERAL REPORTS.** A series of lectures and recitations, with frequent quizzes on the prospecting and opening up of mineral properties, and in the inspection of factories and ceramic plants, with a view to recommending economic changes in them. Frequent trips will be made to the important clay-working centers of Ohio for field-work and practice in observation. Students will be allowed to specialize along their intended lines. Five times a week. Third term.
15. **THESIS.** A satisfactory thesis, involving original investigation and special study must be completed as a requisite for graduation. The subjects for these must lie inside the range of ceramic work, but can be made to follow the line along which the student has been specializing.

DOMESTIC ECONOMY

[HAYES HALL, Rooms 1, 3 and 10]

Associate Professor Bowman, Assistant Professor Souther

* DOMESTIC SCIENCE *

1. **FOOD ECONOMICS.** The evolution of society as affected by food conditions, the study and classification of food principles. The preparation and serving of typical foods of various classes.
One lecture and three laboratory periods a week. Four hours credit. First term.
2. **CONTINUATION OF COURSE I.** Comparative nutritive and money values of foods. Preparation of weekly dietaries for an average family. (Cost limited by instructor. U. S. Bulletin standards used). Preparation and serving of typical foods of various classes.
One lecture and three laboratory periods a week. Four hours credit. Second term.
3. **EMERGENCY WORK AND HOME NURSING.** Study of dietetic treatment for various diseases. Invalid cookery.
One lecture and three laboratory periods a week. Four hours credit. Third term.
4. **PRESERVATION OF FOODS.** Four weeks.
Hygienic Care of Clothing. Laundry Work (Demonstration). Eight weeks.
One lecture and three laboratory periods a week. Four hours credit. First term.
10. **HOUSEHOLD ECONOMICS.** The ordering of Housework. Keeping of household accounts. Home sanitation and hygiene considered.
One lecture (illustrated if necessary) a week. One hour credit. Third term.

DOMESTIC ART

5. **PRIMITIVE AND ANCIENT INDUSTRIAL LIFE.** Its effect upon the artistic and industrial evolution of society.
Sewing Methods considered. Preparation by hand of a series of models.
One lecture and three laboratory periods a week. Four hours credit.
Second term.
6. **TEXTILES.** Study of fibres, and their growth. The process of manufacture. The effect upon industrial activity. Draughting and cutting of wash fabrics. Machine work on same.
One lecture and three laboratory periods a week. Four hours credit.
Third term.
2. **HYGIENIC AND ARTISTIC DRESS.** Consideration of line, form and color. Choice and treatment of textiles.
Principles of dress making and millinery. Designing.
One lecture and three laboratory periods a week. Four hours credit.
First term.
8. **ART APPLIED TO DRESS AND HOME DECORATION.** Millinery, dressmaking and art needlework.
One lecture and three laboratory periods a week. Four hours credit.
Second term.
9. **HISTORY OF DOMESTIC ART AND ARCHITECTURE.** Woman's tailoring. House Decoration.
One lecture and three laboratory periods a week. Four hours credit.
Third term.
- 11, 12, 13. The same work as under 5, 6; except that it is expanded and made continuous through the entire year, as an elective to young women carrying other courses in this or other Colleges of this University. Credits are three hours first term. University credits are three hours first term, three hours second term, two hours third term.

DRAWING

[HAYES HALL, Rooms 22, 24 and 37]

Associate Professor Bradford, Assistant Professor French, Mr. Lewis

1. **FREEHAND DRAWING.** Practice and occasional lectures. Pencil, charcoal, pen and water-color drawing from copies, models and plaster casts.
One drawing period a week, three terms, Industrial Arts.
Two drawing periods a week, first term, Short Mining and Domestic Economy.
Two drawing periods a week, first and second terms; all four-year Engineering Courses.
Three drawing periods a week, three terms, Architecture.
2. **LETTERING.** Practice and occasional lectures.
Two drawing periods a week, third term, Industrial Arts, and Short Mining.
Three drawing periods a week, third term, Ceramics, Civil, Electrical, Mechanical and Mine Engineering, and Architecture.
This Course must be preceded by Course 1.

3. **MECHANICAL DRAWING.** Lectures or recitations, one period a week. Practice two periods a week. All Engineering, Industrial Arts, Architecture. Subjects: Orthographic, Isometric and Oblique Projection and elementary Working Drawings. First term.
Lectures or recitations two periods a week. Practice one period a week, in Industrial Arts and in all Engineering Courses except Civil Engineering; three periods a week in Civil Engineering and Architecture. Subject: Descriptive Geometry. Second term.
Lectures or recitations, one period a week. Practice, two periods a week in Engineering Courses; four periods a week in Architecture. Subject: Shades, Shadows and Perspective. Third term, in all four-year Engineering and Industrial Arts Courses and the Course in Architecture. First term in the Short Mining and Domestic Science Courses.
This Course must be preceded by Course 2.
4. **DRAFTING AND BLUE-PRINTING.** Practice and occasional Lectures. Three periods a week, second term. Arranged especially for the students in the Short Mining Course. This Course must be preceded by the first term of Course (3).
5. **TECHNICAL DRAWING.** Lectures and Practice. Rules and methods for working drawings, tracing, blue-printing, machine design and practice in making same to represent form and dimensions for shop use. Three periods a week. First term, Mechanical and Electrical Engineering Courses. This Course must be preceded by Courses (2) and (3).
7. **PHOTOGRAPHY.** Lectures and Practice. Lectures: Optics of Photography, chemistry of photography, exposing and developing, printing, lantern slides, orthochromatic photography and some of the applications of photography. Practice in outdoor, interior, instantaneous and flash-light photography, copying, lantern slides, and printing. Two periods a week. Ceramics, Architecture, first term. Civil, Mechanical and Mine Engineering, third term. The first term of this Course is elective.
8. **MECHANICAL DRAWING.** Lectures and Practice. Geometric and Projection Drawing. Two periods a week, first and second terms, Industrial Arts.
10. **MECHANICAL DRAWING.** Lectures and Practice. Arranged especially for the students in Agriculture and Horticulture. Two periods a week, first term.
11. **MECHANICAL DRAWING.** Lectures and Practice. Arranged especially for the students in Short Course in Ceramics, five periods a week, third term.
12. **CLAY MODELING.** Modeling in Clay and Casting in Plaster, ornamental forms from designs, photographs, nature and original designs. Two periods a week; first, second and third terms.
This Course must be preceded by Course (1).
Domestic Economy Course, second term. Architectural Course, second and third terms. This Course must be preceded by Course (1).
13. **TECHNICAL AND DECORATIVE DESIGN.** Lectures and Practice. Lectures on the principles of decorative design in monochrome, color and relief, and practice in the same. Two periods a week; first, second and third terms.
14. **PEN DRAWING.** Two periods a week, first term. Arranged especially for the Course in Architecture. This Course must be preceded by Course (1).
15. **TECHNICAL DRAWING.** Lectures and practice. House Designing. Five periods a week, third term. Domestic Economy.
16. **LECTURES AND PRACTICE.** Technical Drawing consisting of the designing and preparation of specifications of structures related to agriculture. Three periods a week, third term.

ART

An elective course in Art offered by Department of Drawing especially for the students of the Domestic Economy Course, but may be taken by any other students of the University.

Must be preceded by Course 1 in Drawing or its equivalent elsewhere.

17. **LECTURES AND PRACTICE.** Lectures on color standards, color theory, color harmony, color appearances, tone and gradation, atmosphere and values. Practice in color work either water or oil color. First term. Lectures illustrated by lantern slides.
18. **LECTURES AND PRACTICE.** Lectures on objects of art, ideas and subjects, style and individuality, schools of art, great artists including old and modern masters. Illustrated by lantern slides. Practice in water or oil painting from still life. Second term.
19. **LECTURES AND PRACTICE.** Lectures will be a continuation of second term's work and including sculpture and the master sculptors. Illustrated by lantern slides. Practice in water or oil painting from life and nature or clay modeling. Third term.

The above is to be offered as an elective for two or three hours as follows: Lecture for one hour and practice for two or four hours as the student has time.

ARCHITECTURE

1. **ORDERS OF ARCHITECTURE.** Detail drawing of the Orders, to accompany the study of Ancient Art. One lecture, and four practice periods a week, second term.
2. **STYLES OF ARCHITECTURE.** Lectures and drawing of Architectural Details representing the characteristic styles in Architecture. One lecture, and four practice periods a week, third term.
3. **DESIGNING.** Lectures and Designing of Architectural structures adapted to modern requirements. Five periods a week; first, second and third terms.
4. **SPECIFICATIONS.** Lectures and Practice in preparing specifications for Architectural Structures. Two periods a week, first term.
5. **DECORATION AND ORNAMENT.** Lectures. The practice part of this Course will be incorporated in Courses (3) and (8). Three periods a week, second term.
6. **ESTIMATES.** Lectures and Practice in preparing estimates for structure designed in Courses (3) and (8). Four periods a week, third term. The duties of a superintendent will be considered in this Course.
7. **HEATING AND VENTILATING AND PLUMBING.** Lectures. The practical applications of this Course will be incorporated in Courses (3) and (8). Five periods a week, second term.
8. **DESIGNING.** Lectures and Practice. Designing of buildings requiring steel and fire-proof construction. Five periods a week, third term.

ECONOMICS AND SOCIOLOGY

[UNIVERSITY HALL, Rooms 17 and 18]

Associate Professor Clark

Course 51 or Course 52 must precede all other Courses.

First Semester

51. **ELEMENTS OF POLITICAL ECONOMY.** A careful study of the laws of production, exchange, distribution and consumption of wealth; combined with an analysis of the industrial actions of men as regards land, labor, capital, money, credit, rent, interest, wages, etc. Text-book, lectures and individual investigations. Four times a week. This Course is repeated in the Second Semester (as Course 52). Students who are required to take the subject, those whose names begin with the letters L to Z will take it in the First Semester; others will take it in the Second Semester (as Course 52).
53. **THE HISTORY OF INDUSTRIAL SOCIETY.** A general view of the evolution of industrial society; and a study of causes and effects of past economic policies together with their bearing on existing conditions; with special reference to England and America. Lectures and assigned readings. Twice a week.
55. **PRACTICAL PROBLEMS IN ECONOMICS.** A rapid study of immigration, money, railroads, crises and tariff. Lectures and collateral readings. Twice a week.
57. **THE TRANSPORTATION PROBLEM.** A study of the development and present economic status of roads, canals and railroads in their relation to industry and to the state. Lectures. Twice a week.
Not offered in 1899-00.
59. **PUBLIC FINANCE AND TAXATION.** This course aims to make the student acquainted with the theory of public revenue and expenditure; and with the leading systems of financial administration throughout the world. Municipal indebtedness and corporate financiering are incidentally treated. Text-book and lectures. Twice a week.
Not offered in 1899-00.
61. **SEMINARY IN ECONOMICS.** Two hours a week at one meeting. All students who elect their Major Study in Economics must take this course in their fourth year. Open, as elective, to other students, graduate and advanced under-graduate, on permission of the instructor.
63. **SOCIOLOGY AND STATISTICS.** Lectures and laboratory work. One hour credit. This course may accompany courses 55, 57, 59 or 65.
65. **COMMERCIAL GEOGRAPHY.** A scientific study of business relations and conditions, domestic and foreign; the sources, quantity and quality of products, and the distribution of the same; trade routes and the means of communication. The Consular Reports will constitute one basis of study. Texts and lectures.

Second Semester

52. **ELEMENTS OF POLITICAL ECONOMY.** Text-book, lectures and individual investigations. Four times a week. (This is a repetition of Course 51, and will be taken in the Second Semester by those students (of whom it is required) whose names begin with the letters from A to K.)

53. **THE HISTORY AND THEORY OF SOCIALISM.** Lectures and collateral readings. Twice a week.
56. **INDUSTRIAL AND SOCIAL REFORMS.** A study of labor problems, charities and corrections, monopolies, insurance, trusts, etc. Lectures and collateral readings. Twice a week.
58. **MONEY, CREDIT AND BANKING.** This course involves the history and theory of the subject; a comparative study of monetary systems, currency, etc.; together with various methods of banking; national banks, clearing houses, sub-treasury, etc.; and a critical analysis of proposals for reform. Texts, lectures and collateral reading. Twice a week.
Not offered in 1899-00.
60. **INDUSTRIAL AND FINANCIAL HISTORY OF THE UNITED STATES.** A complete survey of American industries, financial resources and policies; public lands, government subsidies, internal revenue, etc.; history and description of the Treasury and Interior Departments, the Mints, etc. Lectures and collateral readings. Twice a week.
62. **SEMINARY IN ECONOMICS.** Two hours a week at one meeting. This is a continuation of Course 61, and is open only to those who have had that course. All students who elect their Major Study in Economics must take this Course in their fourth year. Open, as elective, to other students, graduate and advanced under-graduate, on permission of the instructor.
64. **SOCIOLOGY AND STATISTICS.** A continuation of Course 63. One hour credit. May be taken separately or accompany Courses 56, 58, 60 or 66.
Courses 1 and 2 in the College of Agriculture and Domestic Science are the same as Courses 51 and 52 described above.
66. **COMMERCE AND TRADE.** Theory and practice of business. Standard business forms, commercial paper, stocks and bonds, insurance policies and investment securities of all kinds will be studied with the aid of sample copies. This is an advanced course and should be preceded by four elective courses in the department including Course 60. Required readings and reports on current commercial and financial literature. Lectures.

EDUCATION

[UNIVERSITY HALL, Rooms 51 and 54]

Professor Gordy, Mr. Wissler

First Semester

51. **ELEMENTARY EDUCATIONAL PSYCHOLOGY.** This course is intended to be helpful to three classes of students: (1) Those who are not preparing to teach, but who wish to make some study of education in order that they may perform their duties as members of society more intelligently; (2) Those intending to teach and who wish to study the relations between Psychology and education; and (3) Those preparing to be superintendents and who wish to get suggestions as to the best method of teaching Psychology to teachers. The text used is Gordy's *Psychology*. Students will be required to do collateral reading and bring in reports of their work. Four hours a week.

53. **HISTORY OF GREEK EDUCATION.** Students of this course will make a study of the history of the education of the Greeks from the time when life was their only school to the time when Greece became the teacher of the world. The connection between Greek life and Greek education will be sharply emphasized; the defects of Greek ideals of life will be shown as reappearing in Greek ideals and methods of education, and these in turn as exerting an influence on Greek life. This course will be essentially a study of Greek civilization, but with the practical purpose of getting light for the solution of our own problems. It is believed that the courses will be especially helpful to those preparing to teach history, and the classics. The texts used are Davidson's *Greek Education*, and Davidson's *Aristotle*. Readings are required of students in Greek history and Plato's *Dialogues*. Four hours a week.
55. **THE HERBARTIAN PEDAGOGY.** The object of this course is three-fold: (1) To ascertain what the Herbartian Pedagogy is; (2) To determine its truth, and (3) To consider carefully its applicability — so far as it is true — to the schools of this country. Special attention will be given to these Herbartian theories that are most widely current in this country. The texts used are Herbart's *Science of Education*, De Garmo's *Herbart* and Lange's *Apperception*. Four hours a week.
59. **CHILD STUDY.** An elementary course in the growth and development of children, giving special attention to the pedagogical aspect of the subject. Though arranged primarily for teachers this course treats of subjects of universal interest such as the child as a social factor, function of play, the child and self-government, the child and the race, etc. Open to all students. Twice a week.
67. **EDUCATIONAL VALUES.** This course seeks to determine the capacity of the various subjects pursued in elementary and secondary courses to contribute to true educational ideas. The work is based on Fouillie's *Education from a National Standpoint*. Twice a week.
69. A study of Scientific Method; intended especially for those preparing to teach Science. Twice a week.
71. **PEDAGOGICAL RESEARCH.** For teachers and advanced students. Various school problems will be taken up for exhaustive study, thus offering opportunity for an insight into the organization of the school not usually open to undergraduate students. The work will be by topics and largely individual. Special facilities for original investigation will be at the command of students showing themselves competent to do such work. As only a small number of students can be accommodated applications for admission should be made as soon as possible. Twice a week.
73. **MODERN EDUCATIONAL SYSTEMS OF EUROPE.** A brief historical and statistical study of secondary education in Germany, France and England. The work will be based upon such texts as Russel's *German Higher Schools*, Holman's *English National Education*, and will consist of recitations and reports upon original topics. Open to all students. Twice a week.

Second Semester

52. **MODERN EDUCATIONAL THEORIES.** These theories will be studied from three points of view: (1) As the expression of a certain philosophy of life; (2) from the point of view of their consistency; and (3) from that of their truth. The work is based on Quick's *Educational Reformers*. Twice a week.

54. **PLATO'S REPUBLIC.** This course is essentially seminary work for the benefit of those students of Course 53 who wish to make a critical study of Plato's *Philosophy of Education*. Twice a week.
56. **THE KINDERGARTEN.** This course is intended especially for those who are preparing to do kindergarten and primary work, and to be superintendents of schools. Twice a week.
58. **THE PHILOSOPHY OF EDUCATION.** This course aims to make a systematic exposition of the philosophy of education. Four times a week.
60. **EDUCATION IN THE UNITED STATES.** A comparative study of secondary education in the United States and Europe presupposing Course 73. Twice a week.
68. A continuation of 67. Twice a week.
70. A continuation of 69. Twice a week.
72. **PEDAGOGICAL RESEARCH.** Continuation of Course 71. Open to students credited with 59 or 71. Twice a week.

ELECTRICAL ENGINEERING

[ELECTRICAL HALL, Room 9 and Laboratory]

Associate Professor Caldwell, Mr. Fish

2. **ELECTRICAL ENGINEERING.** Lectures, Recitations and Problems. Theory of dynamo-electric machinery, including direct current and alternating current generators and motors; methods of regulation and control; circuits, lamps and auxiliary apparatus; storage batteries; applications of electricity to street car and mine working; design, construction, and management of plant. Five times a week. First, second and third terms.
3. **ELECTRICAL DESIGNING.** Including D. C. and A. C. generators and motors, transformers, distribution, etc. Three times a week, through the year.
4. **ELECTRICAL LABORATORY.** A full experimental course in the handling and testing of generators, motors, storage batteries, circuits, etc. Three half days a week. First, second and third terms.
6. **ELECTRICAL ENGINEERING.** Lectures on direct and alternating circuits, dynamo machinery, transformers, accumulators and applications. Twice a week. (First and second terms of fourth year of Civil, Mining and Mechanical Engineering Courses.)
7. **ELECTRICAL ENGINEERING.** Laboratory work on the subjects treated in Course 6, which it accompanies. Twice a week. (First and second terms and fourth year in Civil, Mining and Mechanical Engineering Courses.)

ENGLISH LITERATURE

[UNIVERSITY HALL, Room 31]

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

Professor Barrows, Assistant Professor Taylor

First Semester

51. **AN INTRODUCTION TO ENGLISH LITERATURE.** Four times a week. (Must precede all other courses in this semester.)

53. **POETRY FROM SPENSER TO MILTON, EXCLUSIVE OF THE DRAMA.** Twice a week. *Omitted in 1899-1900.*
- 55a. **THE BIBLE.** Old Testament. Once a week. *Given in 1901-2.*
- 55b. **THE BIBLE.** Old Testament. Once a week. *Given in 1899-1900.*
- 55c. **THE BIBLE.** New Testament. Once a week. *Given in 1900-1.*
57. **SHAKESPEARE.** Three times a week.
59. **THE NOVEL.** Three times a week. *Omitted in 1900-1.*
61. **FROM DRYDEN TO JOHNSON.** Twice a week. *Omitted in 1900-1.*
63. **PROSE FROM COWPER TO THE VICTORIAN AGE, EXCLUSIVE OF FICTION.** Three times a week. *Omitted in 1899-1900.*
65. **MASTERPIECES.** Three times a week. If elected, must be carried through the year. Open to competent graduates, and to undergraduates who have already taken three elective courses in this department.
67. **CHAUCE.** Twice a week.
69. **LITERARY PROBLEMS.** Twice a week. Required in the third or fourth year of students whose major study is in this department.
71. **VICTORIAN LITERATURE.** Prose. Three times a week. *Omitted in 1900-1.*

Second Semester

52. **REPETITION OF COURSE 51.** Four times a week. (Pre-requisite to all electives in this Semester.)
54. **PROSE FROM SPENSER TO MILTON.** Twice a week. *Omitted in 1899-1900.*
- 56a. **THE BIBLE.** Once a week. Continuation of Course 55a. *Given in 1901-2.*
- 56b. **THE BIBLE.** Once a week. Continuation of Course 55b. *Given in 1899-1900.*
- 56c. **THE BIBLE.** Once a week. Continuation of Course 55c. *Given in 1900-1.*
The study of the English Bible may be continued through three years.
58. **THE DRAMA FROM THE MIRACLE PLAYS TO THE CLOSING OF THE THEATRES.** Three times a week.
60. **THE DRAMA SINCE THE RESTORATION.** Twice a week. *Omitted in 1900-1.*
62. **AMERICAN AUTHORS.** Three times a week. *Omitted in 1900-1.*
64. **POETRY FROM COWPER TO THE VICTORIAN AGE, EXCLUSIVE OF THE DRAMA.** Three times a week. *Omitted in 1899-1900.*
66. **MASTERPIECES.** Three times a week. Must be preceded by Course 65. Open to competent graduates and to under-graduates who have already taken three elective courses in this department.
68. **TRANSLATIONS.** Twice a week. *Omitted in 1899-1900.* A graduate course, but open also to under-graduates who obtain permission to take it.
70. **LITERARY PROBLEMS.** Twice a week. A continuation of Course 69. Required in the third or fourth year of students whose major study is in this department.
72. **VICTORIAN LITERATURE: POETRY.** Three times a week. *Omitted in 1900-1.*

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE — OR TERM COURSES

21. **SHAKESPEARE.** Three times a week. First term. The same as 57, except that it is limited to the first term.
 22. **AMERICAN AUTHORS.** Three times a week. Second term. Open to those who take Course 23.
 23. **AMERICAN AUTHORS.** Three times a week. Third term. Open to those who have taken Course 22.
- Courses 22 and 23 together are the same as Course 62, with a special introduction filling the first twelve weeks of the second term.
- All the Semester electives, from 53 to 65, are open to students who may wish to do a full year of work in this department, or who may wish to give one semester to this department and one to any other; but courses 21, 22, and 23 can be elected by those only who wish to take part of a year's work on the term plan. Course 52 is pre-requisite to all electives.

ENTOMOLOGY

(See Zoology and Entomology)

EUROPEAN HISTORY

(See History)

GENERAL CHEMISTRY

(See Chemistry)

GEOLOGY

[ORTON HALL, Rooms 5, 4, 7 and 13]

Professor Orton, Associate Professor Prosser, Associate Professor Bownocker

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **COSMICAL GEOLOGY.** Lithological Geology, Dynamical and Structural Geology. Books of reference used in preparation of their work: Green's *Physical Geology*, Geike's *Text-book of Geology*, LeConte's *Elements of Geology*, Hunt's *Chemical Geology*, Daubree's *Geologic Experimentale*. Five times a week.
53. **PALEONTOLOGY.** Museum work. Determination of groups of Ohio fossils.
55. **PETROGRAPHY 1.** Laboratory and Lectures. Optical crystallography, with practical determination of rock-forming, macroscopically and microscopically. Study of the igneous rocks in the hand specimen and thin section. Twice a week. The Sturtz rock collection and Voight-Hochgesang thin sections of typical minerals and rocks will be carefully studied. Books of reference: Mitchel Levy—*Les Minneaux des Roches*; Rosenbusch—*Mikroskopische Physiographie der Petrographisch Wichtigen Mineralien*, 3d ed.; *Mykroschpische Physiographie der Massigen Gesteine*, 2d ed.; Teall's *British Petrography*; Spottiswoode's *Polarization of Light*. Pre-requisites: Chemistry, 51 and 52; Metallurgy, 52 (Mineralogy and Crystallography).

Second Semester

52. **PALEONTOLOGICAL GEOLOGY.** Historical Geology. Books of reference used by students in preparation of their work: Nicholson's *Paleontology*, Zittel's *Paleontologie*, *Ohio Geological Reports*, *Paleontology of New York*. Five times a week.
54. Continuation of Course 53.
56. Continuation of Course 55. Twice a week.
58. **GEOGRAPHIC GEOLOGY.** The origin, development, and destruction of topographic forms. Rivers, lakes, oceans, ice, and winds as agents modifying the surface of the earth. The great ice age in North America. [Primarily for teachers.]
- Books of references; Journal of Geology; American Geologist; The great Ice Age; (Geike's) The Ice Age in North America; (Wright) The Reports of the United States Geological Survey; The maps of the Mississippi River Commission, etc. Five hours per week. Lectures, recitations, map work. Third term.

COLLEGES OF AGRICULTURE, ENGINEERING AND PHARMACY

1. **PHYSICAL GEOGRAPHY.** Lectures and recitations. Geikie's *Elementary Lessons*, supplemented by lectures, map drawing, and the study of geographical models. Five times a week. Third term.
2. **GENERAL GEOLOGY.** Cosmical Geology, Lithological Geology, Dynamical and Structural Geology. Books of reference used by students in preparation of their work: Green's *Physical Geology*, Geikie's *Text-book of Geology*, LeConte's *Elements of Geology*, Hunt's *Chemical Geology*, Daubree's *Geologic Experimentale*. Five times a week. First term.
- Paleontological Geology, Historical Geology. Books of reference used by students in preparation of their work: Nicholson's *Paleontology*, Zittel's *Paleontologie*, *Ohio Geological Reports*, *Paleontology of New York*. Five times a week. Second term.
3. **ECONOMIC GEOLOGY.** Lectures. Economic materials of stratified rocks, clays, limes, cements, coals, iron, ores, etc., phosphates, petroleum. Economic materials derived from veins and igneous rocks, gold, silver, copper, mercury. Gems. Books of reference used by students in preparation of their work: *Publications of U. S. Geological Survey*, *State Geological Surveys*, Phillips' *Ore Mining*. Five times a week. Third term.
4. **ELEMENTARY GEOLOGY.** Lectures and recitations. Text-book: LeConte's *Class Book of Geology*. Five times a week. Second term.

GERMANIC LANGUAGES AND LITERATURES

[UNIVERSITY HALL, Rooms 32 and 33]

Professor Eggers, Associate Professor Mesloh

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **ELEMENTARY GERMAN.** Four times a week.
53. **SCIENCE READING.** Twice a week.

55. **GERMAN LITERATURE.** Lectures upon outline of German Literature. Reading of Selections. Four times a week.
57. **THE GERMAN DRAMA.** Lectures and reading of Selections. Three times a week.
59. **FAUST I.** Twice a week. (Can be taken only by those who propose to take 60.)
61. **MIDDLE HIGH GERMAN.** Mediæval Lyrics. Twice a week.
63. **DEUTSCHE CULTURGESCHICHTE.** Lectures in German. Once a week.
65. **COLLOQUIAL EXERCISES.** For advanced students. Twice a week.
67. **GOthic.** Wright's *Primer*. The relation between Gothic and allied languages will be considered. Twice a week.
59. **OLD NURSE.** Lectures on Grammar and reading of Sagas.

The last two courses will alternate.

71. **SANSKRIT.** Perry's *Primer*. Lectures introductory to the study of Indo-Germanic philology.

Second Semester

52. Continuation of Course 51. Four times a week.
54. Continuation of Course 53. Twice a week. Course 53 and 54 must have been preceded by Courses 51 and 52.
56. **GERMAN LYRICS.** Lectures and reading of Selections. Three times a week. Courses 55 and 56 must have been preceded by Courses 51 and 52.
58. **THE GERMAN PROSE.** Lectures and reading of Selections. Three times a week. 57 and 58 must have been preceded by 51, 52, 55 and 56.
60. **FAUST II.** Twice a week.
62. **MEDIÆVAL EPICS.** Twice a week.
64. **DEUTSCHER AUFSATZ.** Once a week.
Courses 59, 60, 61, 62, 63 and 64 can be taken only with the approval of Professor Eggers; and must have been preceded by Courses 51, 52, 55 and 56, or their equivalents.
66. **COLLOQUIAL EXERCISES.** For advanced students. Twice a week.
68. **OLD HIGH GERMAN.** Lectures on Grammar and Literature. Reading of Selections. Twice a week.
70. **COMPARATIVE GRAMMAR.** Lectures. Twice a week.
The last two courses will alternate.
72. Continuation of Course 71.

COLLEGE OF AGRICULTURE, ENGINEERING AND PHARMACY

1. **ELEMENTARY.** Four times a week, through the year.
2. **SCIENCE READING.** Twice a week, through the year.
4. **GERMAN LITERATURE.** Four times a week, through the year.

GREEK LANGUAGE AND LITERATURE

[UNIVERSITY HALL, Room 37]

Professor Smith, Associate Professor Hodgman

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

ELEMENTARY GREEK. White's *First Greek Book* and one or two books of Xenophon's *Anabasis*. This course is designed to meet, partially, the wants of those who are deficient in the Greek required for admission. It cannot receive University credit. Five times a week, through the year.

First Semester

- 51. **XENOPHON'S** *Hellenica*. Greek Prose Composition. Four times a week.
- 53. **LYSIAS**—Select Orations (Morgan). Attic Antiquities. Four times a week.
- 57. **HOMER**—*Iliad* I-VI. Lectures on Epic Poetry. Three times a week.
- 59. **LECTURES ON HISTORY OF ANCIENT ART.** Twice a week.
- 61. **THE ATTIC DRAMA.** Lectures, collateral readings, and quiz. Twice a week.

Second Semester

- 52. **HERODOTUS**—Book VII, Myers' *History of Greece*. Four times a week.
- 54. **HOMER**—*Iliad*. Four times a week.
- 58. **SOPHOCLES' Oedipus Rex.** Lectures on Attic Drama. Three times a week.
- 60. Continuation of Course 59.
- 62. **THE ATTIC DRAMA.** Rapid reading of two or three plays. Twice a week. Must be preceded by 61.

COLLEGE OF ENGINEERING

- 1. **LECTURES ON HISTORY OF ANCIENT ART.** Twice a week, through the year.
Not given in 1900-'01.

HISTORY

AMERICAN HISTORY

[UNIVERSITY HALL, Rooms 27 and 18]

Professor Knight, Dr. J. B. Sanborn

EUROPEAN HISTORY

[UNIVERSITY HALL, Room 7]

Associate Professor Siebert

Course 55 (or 56) must precede all other courses in American History, and those intending to take advanced courses in American History should take Courses 53 and 54 (English History) as early as possible in their course.

Courses 51 and 52, in the order named, must precede all other courses in European History, except Courses 53 and 54.

First Semester

51. **GENERAL HISTORY OF EUROPE TO THE CLOSE OF THE MIDDLE AGES.** Lectures, text-book and collateral readings. Adams, *Civilization during the Middle Ages*. Three times a week. Two sections.
53. **POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND TO THE ACCESSION OF THE STEWARTS.** Lectures, text-book and assigned readings. Gardiner's *Student's History of England*. Three times a week.
55. **POLITICAL HISTORY OF THE UNITED STATES.** Lectures, text-books and prescribed readings. Hart's *Formation of the Union*; Wilson's *Division and Reunion*. Four times a week. This course is repeated in the Second Semester (as Course 56). Of students who are required to take this subject, those whose names begin with the letters from A to K will take it in the First Semester; others will take it in the Second Semester (as Course 56). Two sections.
57. **HISTORY OF EUROPE FROM 1789 TO 1815.** The French Revolution. Lectures, recitations and collateral reading. Stephen's *Europe, 1789-1815*. Three times a week.
59. **ROMAN HISTORY AND INSTITUTIONS.** Lectures, text-book, collateral reading and special reports. Pelham, *History of Rome*. Twice a week.
Given biennially. Not offered in 1899-1900.
61. **PRO-SEMINARY FOR RESEARCH WORK IN AMERICAN HISTORY AND POLITICAL SCIENCE.**
Two hours a week (at one meeting.)
All students who elect their Major Study in the department of American History and Political Science must take this course in the fourth year. Open, as elective, to other students, graduate and advanced under-graduate, on permission of the instructor.
63. **AMERICAN COLONIAL HISTORY.** Lectures and quizzes upon lectures and assigned reading. Three times a week.
65. **CONSTITUTIONAL AND POLITICAL HISTORY OF THE UNITED STATES. 1850-1876.** Secession, Civil War and Reconstruction. Lectures and assigned readings. Three times a week.
Given biennially. Not offered in 1899-1900.
67. **HISTORY OF EUROPEAN COLONIES.** A study of the colonial development of Portugal, Spain, England, the Netherlands, France and Germany during the fifteenth, sixteenth and seventeenth centuries. Lectures, assigned reading and special reports. Twice a week.

Second Semester

52. **GENERAL HISTORY OF EUROPE FROM THE CLOSE OF THE MIDDLE AGES TO THE FRENCH REVOLUTION.** Lectures, text-book and collateral reading. Duruy's *Modern History*. Three times a week. Two sections.
54. **POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND FROM THE ACCESSION OF THE STUARTS TO THE PRESENT TIME.** Lectures, text-book and assigned readings. Gardiner's *Student's History of England*. Three times a week.

56. **POLITICAL HISTORY OF THE UNITED STATES.** Lectures, text-books and prescribed reading. Hart's *Formation of the Union*; Wilson's *Division and Reunion*. Four times a week. [This is a repetition of Course 55 and will be taken as the Second Semester by those students (of whom it is required) whose names begin with letters from L to Z.] Two sections.
58. **HISTORY OF EUROPE SINCE 1815.** Lectures, text-book and assigned reading. Fyffe's *Modern Europe*. Three times a week.
60. **HISTORY OF THE PERIOD OF THE PROTESTANT REFORMATION.** Lectures, text-books, collateral reading and special reports. Hausser's *Era of the Reformation*. Twice a week.
Given biennially. Not offered in 1899-1900.
62. **PRO-SEMINARY FOR RESEARCH WORK IN AMERICAN HISTORY AND POLITICAL SCIENCE.** Two hours a week (at one meeting.)
This is a continuation of Course 61, and is open only to those who have had Course 61. All students who elect their Major Study in the department of American History and Political Science must take this course in the fourth year. Open, as elective to other students, graduate and advanced undergraduate, on permission of the instructor.
64. **CONSTITUTIONAL AND POLITICAL HISTORY OF THE UNITED STATES.** The Formative Period, 1776-1815. An advanced course. Lectures and assigned readings and investigations. Three times a week.
68. **AMERICAN DIPLOMATIC HISTORY.** History of the foreign relations, policy, and treaties of the United States. Lectures and special investigations. Three times a week.
Given biennially. Not offered in 1899-1900.
70. **HISTORY OF EUROPEAN COLONIES.** History of colonization by the important states of Europe during the eighteenth and nineteenth centuries. Lectures, assigned reading and special reports. Twice a week.
Courses 5 and 6 in History in the College of Agriculture and Domestic Science are the same as Courses 55 and 56 in History described above.

HORTICULTURE

[HORTICULTURAL HALL]

Professor Lazenby, Mr. Cunningham

1. **ELEMENTS OF HORTICULTURE.** Lectures and practice in laboratory, greenhouse, gardens, orchard, ornamental grounds and forest. A study of special garden crops, preparation of soil, drainage and irrigation, fertilizers, tools and implements, buildings and weeds.
Propagation, multiplication, germination, transplanting, budding, grafting and pollinating.
Greenhouse construction and management; crops of the vegetable forcing-house.
5. **POMOLOGY AND VITICULTURE.** Four times a week. First term.
6. **WINTER GARDENING AND THE NURSERY.** Four times a week. Second term.
7. **SMALL FRUIT CULTURE.** Including the theory and practice of spraying plants. Four times a week. Third term.
8. **ELEMENTS OF FLORICULTURE.** History and description of flowering plants. Twice a week. First term.

9. **COMMERCIAL FLORICULTURE.** Twice a week. Second term.
10. **AMATEUR OR HOME FLOWER GARDENING.** Management of house plants, ferneries, wardian cases, climbing vines and flowering bulbs. Twice a week. Third term.
11. **ABORICULTURE.** Lectures and field work. A study of native trees and shrubs; their uses for shelter, shade and ornament; method of propagation, culture. Twice a week. First term.
12. **FORESTRY.** Lectures and recitations. A study of the influence of forests upon soils, crops and climate; value of trees for timber; how to improve existing woodland; establishment and management of plantations of forest trees; forestry in Europe. Twice a week. Second term.
13. **LANDSCAPE GARDENING.** Lectures and practice. The principles of æsthetics as applied to natural scenery; the adornment of home and public grounds, including landscape engineering, landscape architecture and landscape horticulture. Twice a week. Third term.

INDUSTRIAL ARTS AND SHOPWORK

[HAYES HALL, Rooms 9, 12, 17, 18, 5 and 6]

INDUSTRIAL ARTS

Professor Sanborn, Mr. Knight, Mr. ———, Mr. ———

1. **TOOLS. MACHINES.** Lectures and recitations on hand and machine tools and the principles of mechanism and mechanics underlying their design, construction and operation. Three times a week.
2. **DESIGNING.** Problems in drawing and design to accompany Course 1. Three drawing periods a week.
3. **SHOP EQUIPMENT, APPLIANCES AND MANAGEMENT.** A continuation of Course 1. Lectures and recitations on the strength and durability of the materials used in construction; shop and factory buildings and their construction; power, power transmission and prime movers; automatic machines and other special devices for turning out cheap and accurate work; methods of compensation and shop accounts and management. Three times a week.
4. **ADVANCED DESIGNING.** Problems in the design of buildings and the arrangement of machinery, line-shafting, etc., for manufacturing plants; to accompany Course 3. Three drawing periods a week.
5. **WORKSHOP AND APPLIANCES.** Lectures and problems on the construction of shop buildings and the arrangement of machinery; power required and the means of transmission; friction in line-shafting and the efficacy of machinery; automatic machines and special shop appliances. Three times a week.
6. **MACHINE DESIGN.** Application of the principles of mechanics and strength of materials to the problems of machine designing. Five times (ten hours' practice) a week.

SHOPWORK

1. **CARPENTRY AND PATTERN MAKING.** Exercises and practice in carpentry, wood-turning and pattern making, including sawing, planing, mortising, splicing, framing and other work involving the use of the ordinary carpenter tools; center and chuck turning; the making of finished patterns; and enough elementary moulding to illustrate draft, parting, cores, etc.
2. **FORGING.** Exercises and practice in iron and steel forging, including such operations as drawing, bending, forming, upsetting, welding and the making and tempering of punches, drills, chisels, lathe tools and springs.
3. **FOUNDRY WORK.** Exercises and practice in tempering sand and preparing moulds of machine parts in the sand, core-making, melting iron and brass, and the pouring of castings.
4. **CHIPPING AND FILING.** Exercises and practice in vise work, including chipping in cast and wrought iron; surface filing, squaring, fitting, finishing, and the scraping of surface plates.
7. **CARPENTRY AND PATTERN MAKING.** Similar to Shopwork 1.
8. **CARPENTRY: CABINET WORK.** Exercises and practice in cabinet making including panelling, mitre and dovetail joints, etc.; use of power tools.
9. **ADVANCED PATTERN MAKING.** Continuation of pattern work of Shopwork 7.
10. **CARPENTRY: BUILDING.** Advanced work in carpentry including use of two foot steel square in laying out of rafters, roof trusses, joists, etc.; stair building; doors, window frames, etc.
11. **FORGING.** Similar to Shopwork 2.
12. **ADVANCED FORGING.** Tool making, tempering of taps, dies, cutters, etc.; annealing; case hardening; ornamental iron work, etc.; visits to shops.
13. **MACHINE WORK.** Exercise and practice in hand-turning in iron and brass on speed lathes; and straight and taper turning, boring, fitting, chucking, thread-cutting, etc., on engine lathes.
14. **MACHINE WORK.** Exercises and practice on the lathe, planer, shaper, drill press and milling machine, with use of small tools as drills, taps, dies, reamers, counterbores, etc.; construction of parts of actual machines.
15. **ADVANCED MACHINE WORK.** Exercises and practice on turret lathe, universal, surface and tool grinding machines, gear cutting, etc.
16. **ADVANCED MACHINE WORK.** The construction and use of jigs and templates; the accurate laying out of work; the duplication of parts, the production of work rapidly and economically, etc.
17. **ADVANCED MACHINE WORK.** The making and use of special tools and fixtures, standard plugs and collars, standard caliper and limit gauges; error limits in modern machine construction; methods of testing the accuracy of machine tools; etc.

SHOPWORK REQUIRED

Number	Credit	Year	Term	Courses in	Number	Credit	Year	Term	Courses in
1	3	1	2	Ag.: Hort.: Ag. (short).	11	3	2	1	M. E.
2	3	2	2	Ag.: Hort.		3	2	2	Cer.: E. M.
3	2	2	1	M. E.: I. A. (short).		3	1	3	Chem.: I. A.
	2	2	1	I. A.		3	2	3	Cer. (short): I. A. (short).
4	2	2	1	E. E.	12	3	2	3	Min. (short).
	3	3	1	I. A.					I. A.
	3	2	1	I. A. (short).	13	3	3	1	E. E.
	3	2	2	M. E.		3	3	2	I. A.
	2	1	3	Cer. (short).		5	2	2	I. A. (short).
	2	2	3	E. M.: Cer.		3	2	3	M. E.
7	3	1	1	Arch.: I. A.: I. A. (short).	14	3	3	1	M. E.
	3	2	1	Chem.		3	3	2	E. E.
	2	2	1	Cer.: E. M.		3	3	3	I. A.
	4	1	3	E. E.: M. E.	15	3	4	1	I. A.
8	3	1	2	Arch.: I. A.: I. A. (short).		4	3	2	M. E.
						5	2	3	I. A. (short).
9	3	1	3	I. A.	16	3	4	2	I. A.
10	3	1	3	Arch.	17	3	4	3	I. A.
11	2	2	1	E. E.					

LATIN

[UNIVERSITY HALL, Rooms 29, 28 and 39]

Professor Derby, Associate Professor Hodgman

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

Courses 51, 52, 53, and 54 in the order named must precede the Elective Courses 55, 56, 57, 58, 61, 62, 63, 64, 65, 66.

FIRST SEMESTER

51. **LIVY — BOOKS 1 AND 2; CICERO** — *Cato Major* or *Laelius*. Four times a week.
53. **HORACE**—*Odes Satires* and *Epistles*; **TACITUS**, *Agricola*. Four times a week.
55. **ROMAN HISTORIANS**—**SALLUST** *Bellum Jugurthinum*; **TACITUS**,—*Annales*; **SUETONIUS**. Three times a week.
57. **ROMAN PHILOSOPHY**. Three times a week. (*Not offered in 1899-1900*).
59. **PHARMACEUTICAL LATIN**. Five times a week.
61. **LINGUISTICS AND INSCRIPTIONS**. Two times a week. (*Not offered in 1899-1900*).
63. **TEACHERS' COURSE—PROSE COMPOSITION**. Two times a week.
- 63a. Supplementary to Course 63. May be taken only by permission of instructor. Once a week.
65. **ROMAN RHETORIC AND ORATORY**. Three times a week. (*Not offered in 1899-1900*).
67. **GREEK AND ROMAN ANTIQUITIES**. Lectures, illustrated. Two times a week.

SECOND SEMESTER

52. **EARLY LATIN COMEDY — PLAUTUS AND TERENCE.** Four times a week.
 54. **PLINY'S** *Letters*; **JUVENAL** *Satires*. Four times a week.
 56. **ELEGIAC POETS — CATULLUS, TIBULLUS, PROPERTIUS.** Three times a week.
 58. **OVID**, *Ramsay's Selections*; **LUCAN. BOOK I.** Three times a week.
 60. **PHARMACEUTICAL LATIN** — Continuation of Course 59. Five times a week.
 62. Continuation of Course 61. Two times a week.
 64. Continuation of Course 63. Two times a week.
 64a. Continuation of Course 63a. Once a week.
 66. **LATER LATIN WRITERS.** Three times a week. (Not offered in 1899-1900).
 68. **GREEK AND ROMAN ANTIQUITIES.** Lectures, illustrated. Two times a week.

COLLEGE OF PHARMACY

1. **PHARMACEUTICAL.** Five times a week. First, second and third terms.

LAW

[ORTON HALL, Room 7 and Basement Room]

FIRST YEAR

FIRST SEMESTER

Elementary Law (Robinson, Walker and Blackstone).

SECOND SEMESTER

Agency (Mechem); Contracts (Bishop); Criminal Law (Hawley); Sales (Tiedeman); Torts (Cooley).

SECOND YEAR

FIRST SEMESTER

Bailments (Hale); Commercial Law (Tiedeman); Evidence (Underhill or Greenleaf); Pleading (Phillips).

SECOND SEMESTER

Construction of Contracts (Jones); Partnership (Parsons); Real Property (Tiedeman); Wills (Schouler).

THIRD YEAR

FIRST SEMESTER

Constitutional Law (Black); Private Corporations (Taylor); Municipal Corporations (Tiedeman); Equity Jurisprudence (Fetter).

SECOND SEMESTER

Ethics (Sharswood); Insurance (Richards); Negligence of Municipal Corporations (Jones); Suretyship (Baylies).

MATHEMATICS

[UNIVERSITY HALL, Rooms 39, 41, 43 and 45]

*Professor Bohannon, Associate Professor McCoard, Assistant Professor Arnold,
Assistant Professor Swartzel, Mr. Rasor, Miss Ball*

A. TERM COURSES

1. **ELEMENTARY ALGEBRA.** *Venable.* Five times a week. First term. (Short Course in Agriculture).
3. **PLANE GEOMETRY.** *Venable.* Five times a week. First or second terms.
- 3a. **PLANE GEOMETRY.** *Venable.* Five times a week. Second term. (Short Courses in Agriculture and Clay-working.)
13. **SOLID GEOMETRY.** *Venable.* Five times a week. Second term.
14. **PLANE TRIGONOMETRY.** *Loney.* Five times a week. First or third terms.
15. **ANALYTICAL AND SPHERICAL TRIGONOMETRY.** *Loney,* with notes on Spherical Trigonometry. Twice a week. Second term.
16. **COLLEGE ALGEBRA.** *Taylor.* Three times a week. Second term.
17. **PLANE ANALYTICS.** *Loney.* Five times a week. Third term.
18. **ANALYTICS AND DIFFERENTIAL CALCULUS.** *Loney, Venable, Edwards.* Five times a week. First term.
19. **DIFFERENTIAL CALCULUS.** *Edwards.* Five times a week. Second term.
20. **INTEGRAL CALCULUS.** *Edwards.* Five times a week. Third term.
11. **DIFFERENTIAL EQUATIONS.** *Edwards.* Once a week. First term.
8. **LEAST SQUARES.** *Merriman.* Twice a week. First term.

B. SEMESTER COURSES

FIRST SEMESTER

55. **PLANE TRIGONOMETRY** (*Loney*) and 57, **ALGEBRA** (*Taylor*). Five times a week.
59. **ANALYTICS** (*Loney, Venable*) and 61, **DIFFERENTIAL CALCULUS** (*Edwards*). Five times a week.
63. **ADVANCED MATHEMATICS.** Topics will be changed from year to year to meet the wishes of the students. Selections may be made from the following courses: (a) Advanced Calculus (*Picard, Houel*); (b) Differential Equations (*Johnson, Murray, Forsythe, Craig*); (c) Higher Plane Curves (*Salmon*); (d) Advanced Analytical Geometry (*Casey, Salmon*); (e) Analytical Geometry of Three Dimensions (*Chas. Smith, Frost, Salmon*); (f) Theory of Equations (*Burnside and Panton*); (g) Modern Higher Algebra (*Chrystal, Salmon, Serret, Cole's Netto*); (h) Modern Geometry (*Cremona, Reye, Steiner, Von Staudt, Chasles*); (i) Determinants (*Muir*); (j) Elliptic Functions (*Weber, Halphen, Durege, Hermite, Greenhill, Briot and Bouquet*); (k) General Theory of Functions (*Forsythe, Harkness and Morley, Tannery, Weierstrass, Durege, Thoame, Biermann*); (l) Potential Functions (*Clausius, Riemann, Dirichlet, Peirce*); (m) Mathematical Theory of Electricity (*Mascart and Foubert*); (n) Higher Geodesy (*Clarke, Helmert, Jordan*); (o) Spherical Harmonics (*Byerly, Ferrers, Heine*); (p) Mathematical Optics; (q) History of Mathematics. Credit, one to ten hours.

65. **PROBLEMS ON ALL PAST WORK.** Once a week.
 67. **ALGEBRA, ANALYTICS, CALCULUS.** Three times a week.

SECOND SEMESTER

56. **ALGEBRA** (*Taylor*), and 58, **PLANE ANALYTICS** (*Loney*). Five times a week.
 60. **CALCULUS AND 62, DIFFERENTIAL EQUATIONS.** (*Edwards*.) Five times a week
 64. Continuation of Course 63. Credit, one to ten hours.
 66. Continuation of Course 65. Once a week.
 68. **TRIGONOMETRY, ANALYTICS, CALCULUS.** Three times a week.

MECHANICAL ENGINEERING

[HAYES HALL, Room 12; MECHANICAL HALL, Second Floor]

Professor Magruder, Associate Professor Hitchcock, Mr. Hale

3. **MECHANISM.** Lectures and recitations on the principles of mechanism and mechanical movements. Five times a week. Second term.
 The accurate laying out of movements, embodying the principles of mechanism. Twice a week. Third term.
6. **ANALYTICAL MECHANICS.** Five times a week. First and second terms.
7. **STRENGTH OF MATERIALS.** Recitations and lectures on the elastic and ultimate resistance of the materials of engineering to stress and their use in structures and machines. Lectures on elementary hydraulics and the flow of water through orifices and pipes over weirs, and in streams, and on measuring the same. Five times a week. Third term.
8. **THERMODYNAMICS.** Lectures and recitations on the transformation of heat and mechanical energies. Ideal indicator diagrams of steam, air and gas engines; the flow of gases through pipes and orifices. Five times a week. Third term.
9. **PRIME MOVERS.** Lectures and recitations on steam and gas engines, turbine water wheels, valve movements and governors; their construction, operation, efficiency and economy. Five times a week. First term.
10. **STEAM BOILERS.** Lectures and recitations on steam boilers, furnaces, automatic stokers, gas producers and boiler appliances; their construction, operation, efficiency and economy. Five times a week. Second term.
12. **EXPERIMENTAL ENGINEERING LABORATORY.** Twice a week. First term. Third year.
13. The same. Four times a week. First term. Fourth year.
14. The same. Four times a week. Second term. Fourth year.
15. The same. Three times a week. Third term. Fourth year.
16. The same. Four times a week. Third term. Third year, Electrical Engineering.
17. The same. Three times a week. Second term. Fourth year, Civil Engineering.
- Courses 12, 13, 14, 15, 16, 17, 24 and 25, in the Experimental Engineering Laboratory are arranged to meet the needs of the different students in

obtaining experimental practice in the use and calibration of accurate measuring instruments; in testing illuminating and lubricating oils for friction, endurance, and the like; in the calibration and adjustment of gauges and springs; in testing the strength and elasticity of the materials of construction in tension, compression, torsion, flexure, shear, and impact; in the flow of liquids and gases; in the use of the steam separators, injectors, steam pipe coverings; belt, rope and chain gearing; in setting valves and eccentrics; in making efficiency tests of simple and compound, condensing and non-condensing steam engines; of pulsometer steam and centrifugal pumps; of hydraulic rams and of impulse and turbine water wheels.

18. **MACHINE DESIGN.** Recitations on Unwin's *Machine Design*, with lectures on American Practice. Five times a week. First and second terms.
20. **HYDRAULIC MACHINERY.** Recitations and lectures on pumping machinery. Twice a week. Third term.
21. **THESIS WORK.** Five times a week. Third term.
22. **TIMBER AND MASONRY.** Lectures on the construction of foundations and structures in timber and masonry. Five times a week, the last three fifths of second term.
23. **MATERIALS OF CONSTRUCTION.** Lectures on the materials used in architecture and building construction, and laboratory exercises on their properties. Five times a week. First term.
24. **EXPERIMENTAL ENGINEERING LABORATORY.** Three times a week. First and second terms. Elective for third year and fourth year engineers.
25. **EXPERIMENTAL ENGINEERING LABORATORY.** Three times a week. Third term. Fourth year, Civil Engineering.
26. **STEAM MACHINERY.** Once a week. Course in Dairying.

METALLURGY AND MINERALOGY

[CHEMICAL HALL, Rooms 4 and 3]

Professor N. W. Lord, Mr. Somermeir

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

52. **MINERALOGY.** Lectures, with frequent quizzes on notes and with study of specimens in the collection of minerals. A short introductory course is given on crystallography, illustrated by wooden models. Text-book: Dana's *Manual Mineralogy and Lithology*. Last nine weeks of Second semester.

COLLEGE OF ENGINEERING

2. **MINERALOGY.** Lectures. Similar to Course 52 in College of Arts, Philosophy and Science, but more practical, and arranged so as to be preparatory to Determinative Mineralogy (Course 3). Three times a week. Third term.
3. **DETERMINATIVE MINERALOGY.** Laboratory course in practical determination of minerals by physical and chemical tests. Each student is furnished with a set of apparatus, and works under an instructor's inspection. Brush's *Determinative Mineralogy* is used as a manual. Five times a week. Third term.

4. **METALLURGY.** A course of lectures upon fuel and its uses, iron and steel, copper, lead, gold and silver, their properties, tests, ores and details of the modes of reduction. The lectures are supplemented by a careful study of references to standard works and journals. Five times a week. First and second terms.
5. **METALLURGICAL LABORATORY.** Lectures and laboratory work. Laboratory practice in the analysis of iron and steel, fuels and slags, and the assays of lead, copper and zinc ores by wet methods, using approved methods as practiced in technical laboratories of metallurgical works. Course 5 must be preceded by Agricultural Chemistry, Courses 1, 8, 9; or by General Chemistry, Courses 7 and 12. Five laboratory periods a week. Three terms.
6. **ASSAYING.** Laboratory work. Practical work in the assaying of gold, silver and lead ores, by furnace methods. Oral instruction, with reference to standard books on assaying. Five laboratory periods a week. Second term.
7. **METALLURGICAL CONSTRUCTION.** Practice in the designing of furnaces and other metallurgical machinery, including detail drawings and estimates. Three times a week. First term. (Professors Lord and Ray.)
8. **ORE DRESSING AND COAL WASHING.** Lectures. Instruction in the methods of concentrating and enriching ores and fuels by mechanical means. Lectures with reference to Rittinger's *Aufbereitung*; Callon's *Course d'Exploration des Mines*; Kunhardt's *Ore Dressing*, and various papers in technical journals. Twice a week. First term.
9. **MINERAL CHEMISTRY.** Lectures and laboratory practice. Lectures upon fire damp, mine explosions, explosives, boiler, waters, poisonous gases, iron ores; iron and steel, their properties and modes of manufacture; coal and coke. Five hours a week. Third term.

MILITARY SCIENCE AND TACTICS

[ARMORY]

Lieutenant Martin

1. **MILITARY DRILL.** Three times a week through the year.
2. **TACTICS.** Lectures and recitations. Twice a week. Second term.
3. **ART OF WAR.** Lectures and recitations. Twice a week. Second term.

MINE ENGINEERING

[CHEMICAL HALL, Room 26]

Associate Professor Ray

ELEMENTARY ALGEBRA. (Mathematics 2.) Wentworth. Five times a week. Three terms.

1. **MINE SURVEYING.** Lectures and field practice. This is similar to Course 4, but more elementary. The same text is used. The students have more practice in the drawing-room. Five times a week. First term.
2. **VENTILATION AND HAULAGE.** Lectures illustrated by experiments and maps of mines and models when possible, tests by safety lamps and anemometers, and solution of air distribution in coal mines. Five times a week. Second term.

3. **MINE OPERATING.** A course of lectures and practical instruction in mine book-keeping and accounts, cost of working, etc., particularly adapted to Ohio coal mining. Five times a week. Third term.
4. **MINE SURVEYING.** Field practice in the use of instruments for surface and underground surveys. Full notes are taken, and maps and plans made in the drawing-room. Davie's *Surveying*, by Van Amringe, is used as a text-book. Five times a week. First term.
5. **MINE ENGINEERING.** Lectures. Mine operating, mining machinery, ventilation, shaft-sinking, working out deposits, etc. Constant reference is required to the standard works and to the leading technical journals, with practice in designing mine plants, draughting and estimates. Five times a week through the year.
6. **PLANS AND SPECIFICATIONS.** Five times a week. Third term. [Professors Lord and Ray.]

PHARMACY

[CHEMICAL HALL, Rooms 13 and 12]

Professor Kauffman, Assistant Professor Dye

6. **PHARMACY.** General pharmaceutical processes. Lectures three times a week. First term.
7. **PHARMACY.** United States Pharmacopeia official preparations. Lectures twice a week. Laboratory practice daily. Second term.
8. **DISPENSATIONS.** Official preparations. Lectures twice a week. Laboratory practice daily. Third term.
9. **PHARMACEUTICAL CHEMISTRY.** Unofficial preparations. The National Formulary. Lectures twice a week. Laboratory practice daily. First term.
10. **EXTEMPORANEOUS PHARMACY.** Prescription practice. Lectures once a week. Laboratory practice three times a week. Second term.
11. **GENERAL PRACTICE.** Lectures twice a week. Dispensing practice daily. Prescription practice daily. Third term.
12. **MATERIA MEDICA.** Official drugs and classification. Three times a week. First term.
13. **MATERIA MEDICA.** Official and unofficial drugs. Three times a week. Second term.
14. **MATERIA MEDICA AND THERAPEUTICS.** Synthetic Products. Poisons and Antidotes. Three times a week. Third term.
15. **PHARMACEUTICAL ASSAYING.** Three times a week. First term.
16. **METHODS OF MANUFACTURE.** Three times a week. Second and third terms.
17. **GENERAL PHARMACY.** Two lectures, three laboratory periods a week. Through the year.
18. **LABORATORY.** Special work for veterinary students. Five times a week. Third term.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

(Course Preparatory to Medicine)

First Semester

51. **PHARMACY.** General pharmaceutical processes. Lectures three times a week.

Second Semester

52. Continuation of Course 51, with Laboratory practice.

PHILOSOPHY

[UNIVERSITY HALL, Rooms 33, 50, 49 and 51]

*Professor Scott, Mr. Wissler**First Semester*

51. **PSYCHOLOGY. LOGIC BEGUN.** Four times a week. Required in the Courses for B. A., B. Ph. (L.), and B. Ph. (M. L.)
53. **PSYCHOLOGY.** Three times a week. Required in the Courses for B. Ph. (E.), B. Sc., for Law and Journalism, and for Medicine.
55. **ETHICS.** Three times a week. Required in Course for B. Ph. (E.)
57. **HISTORY OF ANCIENT AND MEDIAEVAL PHILOSOPHY.** Three times a week. Elective after Courses 51 and 52.
59. **INTRODUCTION TO PHILOSOPHY.** Twice a week. Elective after Courses 51, 52, 56 and 57 or after Courses 53, 54, 55 and 56.
61. **PHYSIOLOGICAL AND EXPERIMENTAL PSYCHOLOGY.** Twice a week. Elective. This course begins with a general survey of the organic basis of personality, attention, etc., taking up in turn the sense organs and perception, motor processes and the personal equation.
63. **LEADING WORKS IN PHILOSOPHY.** Twice a week. Elective on the same conditions as Course 59.

Second Semester

52. **LOGIC COMPLETED AND ETHICS.** Four times a week. Follows Course 51.
54. **LOGIC.** Three times a week. Follows Course 53.
56. **HISTORY OF MODERN PHILOSOPHY.** Three times a week. Required after Course 55. Also elective after Courses 51 and 52.
60. **METAPHYSICS.** Twice a week. Elective after Courses 51, 52, 57 and 56 or after Courses 53, 54, 55 and 56.
62. **PHYSIOLOGICAL AND EXPERIMENTAL PSYCHOLOGY.** Twice a week. Elective. The work of this semester presupposes Course 61. Individual topics will be assigned and the student will be required to report upon the general literature of the subject as well as to make an experimental study of some of the controverted points.
64. **LEADING WORKS IN PHILOSOPHY.** Twice a week. Elective on the same conditions as Course 60.

PHYSICS

[UNIVERSITY HALL, Rooms 10, 14, 23 and 24]

Professor Thomas, Assistant Professor Boyd, Mr. Kester

COLLEGES OF AGRICULTURE, ENGINEERING AND PHARMACY

1. **ELEMENTARY PHYSICS.** Recitations and experimental lectures. Five times a week. First and Second Terms. Text: Carhart & Chutes' "Elements of Physics." (Required in all Short Courses.)
2. **MECHANICS AND HEAT.** Electricity and Magnetism, Sound and Light. Lectures and recitations. Three times a week. Through the year.
3. **PHYSICS.** Extension of Course 2, with practice in solution of problems. Twice a week. Through the year.
4. **ELECTRICITY AND MAGNETISM.** Lectures and recitations. Three times a week. First term. (Third year, Electrical Engineering.)
5. **PHYSICAL LABORATORY.** Elementary manipulation. Length, mass and time measurements. Work in density, elasticity and heat. Three times a week. Second and third terms.
6. **PHYSICAL LABORATORY.** Theory and practice of magnetic and electrical measurement, including the testing and standardizing of instruments; conductivity of conductors; insulation, capacity and resistance of insulated conductors and cables; temperature co-efficients; commercial measuring and testing instruments; strength and distribution of magnetic fields, magnetic moments, permeability; work in light including optical constants; spectroscopy; photometry of gas, electric and other lights. Five times a week. First, second and third terms. (Third year, Electrical Engineering.)
7. **PHYSICAL LABORATORY.** Two to three times a week. Through the year. Course 7 must be preceded by Course 2.
9. **PHYSICAL LABORATORY.** A second year's work in the Physical Laboratory. Three times a week, with five hours' credit. Course 9 must be preceded by Course 7.

The work in the Physical Laboratory begins with exercises in length, mass and time measurement, making use of scales, tapes and bars, micrometer screws, micrometer microscopes, the dividing engine, the cathetometer, the balance, chronometers, chronoscopes, etc. This course is intended to give the student facility in the use of instruments and knowledge of the theory of their construction and adjustment.

The determination of various physical constants follows, with elementary exercises in heat, light, electricity and magnetism; after which the student takes up such advanced work as his taste and skill permit. The experimental work is accompanied by instruction in methods and in the discussion of results.

11. **MECHANICS, SOUND AND HEAT.** One lecture, two laboratory periods a week. Required in the Course in Pharmacy.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **MECHANICS, HEAT, ETC.** Three times a week. Second year, Science Course. Elective in the First year of the Courses of Arts and Philosophy.

53. **MECHANICS, SOUND AND HEAT.** One lecture, two laboratory periods a week. Elective in the First year of the Courses of Arts and Philosophy. Required in the First year of the Course Preparatory to the Study of Medicine.
55. **LABORATORY.** Three to five times a week.
57. **LABORATORY.** Three to five times a week. Course 57 must be preceded by Course 55.

Second Semester

52. **ELECTRICITY, MAGNETISM, ETC.** Three times a week. Follows Course 51.
54. **ELECTRICITY, MAGNETISM, ETC.** One lecture, two laboratory periods a week. Follows Course 53.
56. **LABORATORY.** Continuation of Course 55.
58. **LABORATORY.** Continuation of Course 57.
60. **LABORATORY.** Two hours a week. First year of Course Preparatory to the Study of Medicine.

PHYSIOLOGY

(See Anatomy and Physiology)

POLITICAL ECONOMY

(See Economics)

POLITICAL SCIENCE

[UNIVERSITY HALL, Room 27]

*Professor Knight**First Semester*

51. **INTERNATIONAL LAW.** Lectures and text-book. A study of public international law and of the important modern treaties. Lawrence's *Principles of International Law*. Twice a week. Open only to those who have had Courses 51, 52 and 55 (or 56) in History.
53. **POLITICAL INSTITUTIONS OF THE UNITED STATES.** Lectures and recitations. A study of the origin and nature of the political institutions of the United States, and an analysis of the form and powers of the government. Bryce's *American Commonwealth*; Burgess's *Political Science*. Three times a week. Open only to students who have had History 55 or 56.
55. **THE GOVERNMENT OF DEPENDENCIES.** A study of the political institutions of the leading colonial governments. Lectures, collateral readings and special reports. Twice a week.
Given biennially. Not offered in 1899-1900.

Second Semester

52. **MUNICIPAL GOVERNMENT.** Lectures and collateral reading. A study of the development and status of modern municipalities, and a comparative study of recent American municipal charters. Twice a week.

51. **COMPARATIVE POLITICAL INSTITUTIONS OF EUROPE AND AMERICA.** Lectures, recitations and collateral readings. A comparative study of the political institutions and governmental forms, and powers in the United States, England, Germany, France and Switzerland. Burgess's *Political Science and Constitutional Law*. Three times a week. Course 54 must be preceded by Course 53.
56. **HISTORY OF TREATIES AND MODERN DIPLOMACY.** Lectures on important treaties of modern times with special reference to their bearing upon international law. Accompanied by collateral reading and special reports. Twice a week. This course must be preceded by Course 51.

RHETORIC AND ENGLISH LANGUAGE

[UNIVERSITY HALL, Rooms 42, 40 and 38]

*Professor Denney, Assistant Professor Graves, Assistant Professor Shurter,
Assistant Professor McKnight, Mr. Parker*

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **ENGLISH COMPOSITION — WRITTEN AND ORAL.** *Three times a week.* Credit two and one-half hours. The course includes (a) two exercises weekly in the writing of short themes, the outlining and composition of essays and speeches, and the study of illustrative texts for structure and form, in connection with Scott and Denney's *Paragraph Writing*; (b) one practice hour weekly in oral composition, including exercises and drill in the essentials of good speaking and the delivery of at least one original speech and one essay by each member of the class. The practice hour is in charge of the instructor in Public Speaking.
Required in all courses.
53. **ANALYSIS OF ENGLISH PROSE.** *Four times a week.* The course includes (a) two recitations weekly in the analysis of specimens of prose literature, selected to illustrate rhetorical principles—text books, Genung's *Rhetorical Analysis* and Lewes' *Principles of Success in Literature*; (b) one lecture weekly on the *Principles of Style* with prescribed readings and reports; (c) one exercise weekly in composition-practice, mainly in types of exposition. Course 53 must be preceded by 52.
Required in the Modern Language and English Courses in Philosophy, and the Course in Commerce and Administration.
55. **RAPID WRITING.** *Once a week.* The preparation of articles for the Press with practical exercises in observation, reporting, abstracting, condensation and expansion, proof reading, and a study of newspaper forms.
Required in the Course Preparatory to Law and to Journalism. Elective to students who have passed Course 53 or 54.
57. **BRIEF-MAKING AND ARGUMENTATION.** *Three times a week.* The course includes (a) the study of the principles of logical analysis, evidence, argumentation, persuasion and debating; practice in writing briefs of noted American and British speeches; the preparation of original briefs preliminary to a series of formal debates extending through the remainder of the course, one debate each week, by sections of the class, in rotation; (b) the instructor

in Public Speaking will meet the class one hour of the three each week, in the early part of the course, for general exercises and drill preparatory to debate, and after the debates begin, for conference and criticism and further drill. This course should be preceded or accompanied by Course 53 or 54.

59. **POETICS.** *Twice a week.* Gummere's Hand-book of Poetics for reference. Prescribed readings and reports, with exercises in verse-writing to illustrate the meters of English verse. This course must be preceded by Course 53 or 54.
61. **RHETORICAL THEORY.** *Two hours a week.* Special investigations, reports and discussions. An introduction to methods of research and use of material. Exclusively for undergraduates making their graduation theses in this department and for graduate students working in either of the English Departments.
63. **ADVANCED RHETORIC.** *Twice a week.* The subject matter of this course is the same as that of Course 3 described below. Course 63 is required of students in the Course Preparatory to Medicine, and is open to no others, except by special permission.
65. **THE STUDY OF A NOVEL FOR ITS DRAMATIC ELEMENTS** under the direction of the Professor of English Literature, followed by its recasting in the form of a play under the direction of the Professor of Rhetoric, and its presentation by the class under the direction of the instructor in Public Speaking. *Once a week.* Special permission necessary.
67. **TEACHERS' COURSE IN RHETORIC.** *Two hours a week.* Lectures, conferences and prescribed readings on the teaching of composition and rhetoric in the schools; class-room procedure; the place of the text-book; plans for courses and for lessons; the teacher's equipment; the essay problem; a review of the work of the English Conferences and of recent text-books; the relations between composition-teaching and the teaching of English Classics; the order of topics; the function of criticism. Course 67 should be preceded by Course 53 or 54, but this requirement is waived for those who are engaged in teaching.
69. **HISTORY OF THE ENGLISH LANGUAGE.** *Twice a week.* An elementary course complete in itself, but also introductory to courses in Old and Middle English. Lectures and text-book (Emerson's Briefer History) with illustrative readings.
Required in the English Course in Philosophy. Elective to all other students in Arts and Philosophy Courses.
71. **OLD ENGLISH PROSE.** *Twice a week.* A reading course. Course 71 must be preceded or accompanied by Courses 69 and 70.
Required in the English Course in Philosophy. Elective to all others who have passed or are taking Courses 69 and 70.
73. **OLD AND MIDDLE ENGLISH PHILOLOGY.** *Two hours a week.* Must be preceded by Courses 69 and 70.
75. **PUBLIC SPEAKING.** *Two hours a week.* Exercises based upon assigned topics, which the student has mastered, in the fields of history, politics, education, and current events. Speaking from topical outlines and extempore speaking. Course 75 must be preceded by Course 53 or 54.

Second Semester

52. **ENGLISH COMPOSITION—WRITTEN AND ORAL.** *Three times a week.* Credit two and one-half hours. Continuation of Course 51. Text-book; Cairns' *The Forms of Discourse*.
Required in all courses.
54. **ANALYSIS OF ENGLISH PROSE.** *Four times a week.* Repetition of Course 53.
Required in the Course in Arts, the Latin Course in Philosophy, the Course Preparatory to Law and to Journalism, and the Course in General Science.
56. **RAPID WRITING.** *Once a week.* Continuation of Course 55 and must be preceded by Course 55.
Required in the Course Preparatory to Law and to Journalism. Elective to others who have passed Course 53 or 54, and 55.
58. **BRIEF-MAKING AND ARGUMENTATION.** *Three times a week.* Continuation of Course 57 and must be preceded by Course 57.
60. **SHORT STORIES.** *Twice a week.* Lectures and practice. Structure and plot analysis of selected narratives; study of plan, purpose, diction and the uses of description; practice in writing short stories; with individual and class criticism. Course 60 must be preceded by Course 53 or 54.
62. **PROBLEMS IN CRITICISM.** *Two hours a week.* Special investigations, reports and a thesis. Course 62 must be preceded by Course 61.
64. **ADVANCED RHETORIC.** *Twice a week.* A continuation of Course 63 and must be preceded by Course 63.
66. **THE STUDY OF A NOVEL FOR ITS DRAMATIC ELEMENTS,** under the direction of the Professor of English Literature, followed by its recasting in the form of a play under the direction of the Professor of Rhetoric, and its presentation by the class under the direction of the instructor in Public Speaking. *Once a week.* Continuation of Course 65 and must be preceded by Course 65.
68. **TEACHERS' COURSE IN ENGLISH LANGUAGE AND ENGLISH GRAMMAR.** *Two hours a week.* Lectures, conferences and prescribed readings on the teaching of English in the schools. Course 68 should be preceded by Course 53 or 54, but this requirement is waived for those engaged in teaching.
70. **DEVELOPMENT OF ENGLISH PROSE.** *Twice a week.* An elementary course complete in itself, but also introductory to courses in Old and Middle English. Course 70 furnishes a rapid survey of the history of idiom and of the practical resources of the language, for students whose courses do not require the thorough study of Old and Middle English. Lectures and Illustrative Readings.
Required in the English Course in Philosophy. Elective to all other students in Arts and Philosophy Courses.
72. **OLD ENGLISH PROSE AND POETRY.** Continuation of 71 and must be preceded by 71. *Twice a week.*
Required in the English Course in Philosophy. Elective to all others who have passed 69 and 70.
74. **OLD AND MIDDLE ENGLISH PHILOLOGY.** Continuation of 73 and must be preceded by 73. *Two hours a week.*
76. **PUBLIC SPEAKING.** Continuation of Course 75 and must be preceded by Course 75. *Two hours a week.*

COLLEGES OF AGRICULTURE AND DOMESTIC SCIENCE, ENGINEERING AND PHARMACY

5. **ENGLISH COMPOSITION—WRITTEN AND ORAL.** Three terms. *Three times a week.* Credit two and one-half hours. For a description of Course 5 see Courses 51 and 52 above.
Required in all four-year and three-year courses.
3. **ADVANCED RHETORIC.** Three terms. *Twice a week.* The course includes (a) *once a week*, prescribed readings in the literature of technology and science; and the analysis of specimens of this literature, selected to illustrate rhetorical principles; (b) *once a week*, reports, abstracts, memoranda, and notes of lectures and of articles in the technical journals; practice in drawing specifications and writing brief papers on technical and scientific subjects.
Required in all four-year courses in the College of Engineering.
4. **ADVANCED COMPOSITION.** Three terms. *Twice a week.* Course 4 is intended for students desiring further practice in composition. Course 4 will not be given unless chosen by ten or more students. Voluntary in the courses in Civil, Mine, Mechanical and Electrical Engineering. Elective in the course in Industrial Arts, Chemistry, Pharmacy, Agriculture, Horticulture, Forestry, and Domestic Economy.

ROMANCE LANGUAGES

[UNIVERSITY HALL, Rooms 35 and 34]

I. FRENCH

Professor Bowen, Assistant Professor Bruce

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **ELEMENTARY FRENCH.** Four times a week. Grammar: Edgren's (Part I) or Joynes' Minimum, with written exercises. Reader: Super's (from Part II) or Whitney's (Parts I and II). In this course the study of the language is taken up from the beginning. Stress is laid at first upon the acquisition of a correct pronunciation, after which the entire energy of the student is directed toward the attainment of a full and accurate reading knowledge of the language. Grammar and composition are made to contribute to this end.
53. **SCIENCE READING.** Twice a week. A course introductory to the vocabulary of scientific literature, designed to familiarize the student with technical terms and style. Open to those who have completed Courses 51 and 52, or who have received credit for French as an entrance subject.
55. **MODERN FRENCH LITERATURE.** Four times a week. Contes and Novels: Fontaine's *Historiettes Modernes*, Tome II. Balzac, Eugénie Grandet. Prose composition: Edgren's French Grammar [Syntax]. Lectures supplement the work; private reading required; systematic attention given to syntax and idiom. Open to those who have completed Courses 51 and 52, or who have received credit for French as an entrance subject.
57. **FRENCH COMEDY.** Three times a week. Study of the growth of French Comedy, with work centering upon Molière [four plays], Regnard [Le Joueur] and Beaumarchais [Le Barbier de Séville]. Lectures and collateral reading. Open to those who have completed Courses 55 and 56.

59. **ADVANCED PROSE COMPOSITION.** Once a week. Practice in speaking and writing French. Intended for advanced students who desire special training on the practical side of the language. Open to those who have completed Courses 55 and 56.
61. **FRENCH TRAGEDY.** Three times a week. Racine and Voltaire. Lectures and readings, with assigned topics, reports and discussions. Must be preceded or accompanied by Course 57.
63. **FRENCH LITERATURE BEFORE THE SEVENTEENTH CENTURY.** Three times a week. Advanced work as in Course 61. Special study of la Chanson de Roland. Must be preceded or accompanied by Course 57. [Not offered in 1900-1901.]

Second Semester

52. **MODERN PROSE AND PLAYS.** Continuation of Course 51. Four times a week. Historical and narrative prose; one or more prose comedies. Sight reading is emphasized.
54. **SCIENCE READING.** Continuation of Course 53. Twice a week.
56. **MODERN FRENCH LITERATURE.** Continuation of Course 55. Four times a week. Lyric Poetry: Bowen's Modern French Lyrics. Drama: Comparative study of the classical and the romantic drama: Corneille, Horace; Hugo, Hernani.
58. **RECENT FRENCH WRITERS.** Three times a week. Bourget, Daudet, Rostand (Cyrano de Bergerac), Zola, and others. Open to those who have completed Courses 55 and 56.
60. **ADVANCED PROSE COMPOSITION.** Continuation of Course 59. Once a week.
62. **CHEAUTEAUBRIAND AND THE PRECURSORS OF THE ROMANTIC MOVEMENT.** Three times a week. Lectures and readings, with assigned topics, reports and discussions. Must be preceded by Course 57. Toward the close of the year lectures will be given on: Methods of teaching French and the teacher's equipment.
64. **THE DEVELOPMENT OF THE FRENCH NOVEL.** Three times a week. Advanced work, as in Course 62. Must be preceded by Course 57. [Not offered in 1900-1901.]

COLLEGES OF AGRICULTURE AND ENGINEERING

1. **ELEMENTARY FRENCH.** Four times a week throughout the year. Grammar and reader, modern prose and plays, as in Courses 51 and 52.
2. **MODERN FRENCH LITERATURE.** Four times a week throughout the year. The work is the same as in Courses 55 and 56. Open to those who have completed Course 1.
3. **SCIENCE READING.** Twice a week throughout the year. The work is the same as in Courses 53 and 54. Open to those who have completed Course 1 (or an equivalent).

II. ITALIAN

Professor Bowen

51. **GRAMMAR AND READINGS.** Two hours a week. First Semester. Grandgent's Italian Grammar and Bowen's First Italian Readings. Open to those who have completed Courses 51 and 52 (or an equivalent) in French.

2. **GOLDONI AND DANTE.** Continuation of Course 51. Two hours a week. Second Semester.

III. SPANISH

Professor Bowen

51. **GRAMMAR AND READINGS.** Twice a week. First Semester. Edgren's Spanish Grammar and Matzke's First Spanish Readings. Open to those who have completed Courses 51 and 52 (or an equivalent) in French. [Given in alternate years; will not be offered in 1900-1901.]
52. **CALDERON AND CERVANTES.** Continuation of Course 51. Twice a week. Second Semester.

SANSKRIT

(See Germanic Languages)

SHOPWORK

(See Industrial Arts)

SOCIOLOGY

(See Economics and Sociology)

VETERINARY MEDICINE

[VETERINARY HOSPITAL AND TOWNSHEND HALL]

Dr. White, Dr. Lavery, Dr. Fredericks, Mr. Brumley

COLLEGES OF AGRICULTURE AND VETERINARY MEDICINE

11. **OSTEOLOGY.** Lectures illustrated with skeletons and anatomical preparations. Dissections. Five times a week. First term.
12. **MYOLOGY.** Splanchnology and Angiology. Practical dissections and demonstrations on cadavers. Five times a week. Second term.
13. **LECTURES ILLUSTRATED IN THE DISSECTING ROOM AND ON ANATOMICAL MODELS.** Five times a week. Third term. Books of reference and recommended for study: Chauveau's *Comparative Anatomy* (Fleming's translation); Strangeway's; McFaydean; Mueller and Leisering.
14. **LECTURES AND GENERAL PATHOLOGY.** Five times a week. First term.
15. **SPECIAL PATHOLOGY AND THERAPEUTICS OF SPORADIC DISEASES.** Non-infectious Internal Diseases. Five times a week. Second term.
16. **SPECIAL PATHOLOGY AND THERAPEUTICS OF NON-INFECTIOUS DISEASES OF THE HORSE, OX AND DOG.** Five times a week. Third term.
17. **DISEASES OF THE COW.** Three hours a week. Second term.
18. **SURGICAL DISEASES AND OPERATIONS.** Lectures; illustrated by practical demonstrations by drawings, on living animals in the clinic, and on cadavers in the dissecting-room. Five times a week. First, second and third terms. Books recommended: As text-book, Mueller's *Operative Veterinary Surgery* (Dollar's translation). Liantard's *Manual of Operative Veterinary Surgery*, Beyer.

19. **HORSE, CATTLE AND DOG CLINIC IN THE VETERINARY HOSPITAL.** Stationary and Ambulatory. The clinics are held at 10-11 A. M. (standard) and are free. Animals left in the Hospital are treated by the students of the junior and senior year, under the superintendence of the clinical professor.
20. **SPECIAL PATHOLOGY AND THERAPEUTICS OF INFECTIOUS AND CONTAGIOUS DISEASES.** Five times a week. First term.
21. **SPECIAL PATHOLOGY AND THERAPEUTICS OF INFECTIOUS AND CONTAGIOUS DISEASES.** Three times a week. Second term. Texts: Froehner-Freidberger, Williams, Robertson.
22. **GENERAL THERAPEUTICS.** Lectures. Texts: Ellenberger and Hoffmeister. Five times a week. Third term.
23. **OBSTETRICS.** Lectures and demonstrations. Anatomy and pelvic organs. Diseases before and after parturition. Obstetrical operations and manipulations. Books: Fleming's *Franck's Obstetrics*. Three times a week. First, second and third terms.
24. **GENERAL SURGERY.** Practical work, such as the more common operations which a regular practitioner would be called upon to perform. All this work is done by the student upon chloroformed live animals purchased for the purpose. Five times a week. First term.
25. **ANATOMICAL LABORATORY.** Practical work in Topographical Anatomy, as a review of Anatomy for senior students. Books: McFadyean, Schmaltz's plates.
26. **PRINCIPLES OF HORSE-SHOEING.** Lectures and demonstrations. Includes all the diseases of the foot due to bad paring, shoeing, etc. Books: Leisering, Fleming.
27. **MEAT INSPECTION.** Lectures on Inspection of Meat and Milk. Five times a week. Books: Walley, Ostertag.
28. **ANATOMY.** Five times a week. First term.
29. **GENERAL PATHOLOGY.** Five times a week. Second term.
30. **SPECIAL PATHOLOGY AND THERAPEUTICS OF INFECTIOUS AND CONTAGIOUS DISEASES.** Five times a week. Third term.
31. **CANINE DISEASES.** Three times a week. First term.
32. Continuation of Course 31.
33. **OPHTHALMOLOGY.** Twice a week. Third term.

ZOOLOGY AND ENTOMOLOGY

[BIOLOGICAL HALL, Rooms 3, 4, 7, 8 and 9]

Professor Osborn, Assistant Professor Hine, Mr. Landacre

COLLEGE OF AGRICULTURE

1. **INVERTEBRATE AND VERTEBRATE.** Three times a week. Invertebrate, first and second term; Vertebrate, third term. This course includes a general discussion of groups, dissection of types and an outline of classification.
3. **ECONOMIC ENTOMOLOGY.** Insects of Forest, Orchard and Garden. Five times a week. Third term.

4. **ECONOMIC ENTOMOLOGY.** Twice a week, through the year. This course must be preceded by Course I.
7. **SYSTEMATIC AND PRACTICAL ENTOMOLOGY.** Two lectures and one laboratory period a week. Third term.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

51. **COMPARATIVE ZOOLOGY.** Two lectures and one laboratory period a week. This course includes studies of types of different groups, discussion of principles and an outline of classification.
53. **COMPARATIVE ANATOMY OF VERTEBRATES.** A laboratory course. Three laboratory periods a week, devoted to Osteology, Myology, Neurology and a full study of certain type forms.
55. **COMPARATIVE ANATOMY OF VERTEBRATES.** A laboratory course. Five laboratory periods a week. Similar to 51, but more extended.
57. **ZOOLOGY AND ANATOMY.** Advanced laboratory. Three laboratory periods a week.
59. **ZOOLOGY AND ANATOMY.** Advanced laboratory. Five times a week.
61. **ENTOMOLOGY.** An advanced Practical Course. Five laboratory periods a week. This course must be preceded by Courses 51 and 52, or 1, or 4, or 7 in the College of Agriculture.
65. **ORNITHOLOGY.** Two laboratory periods a week. Open to those who have had Zoology 51, or its equivalent.

Second Semester

52. Continuation of Course 51. Lectures twice a week. One laboratory period.
54. Continuation of Course 53. Three laboratory periods a week.
56. Continuation of Course 55. Five laboratory periods a week.
58. Continuation of Course 57. Three laboratory periods a week.
60. Continuation of Course 59. Five laboratory periods a week.
62. Continuation of Course 61. Five laboratory periods a week.
64. **COMPARATIVE ZOOLOGY.** Three lectures and one laboratory period a week.
66. Continuation of Course 65.

Courses 57, 58, 59, 60, 61, 62, must be preceded by Course 1 in the College of Agriculture, or Courses 51, 52, or 53, 54, or 64; or an equivalent taken elsewhere. The student may choose his work from any of the following:

- (a) The Exhaustive Anatomy and Histology of the Frog.
- (b) Comparative Anatomy of Invertebrates.
- (c) Invertebrate Embryology.
- (d) Vertebrate Embryology.
- (e) Comparative Neurology.
- (f) Cellular Biology.

A student whose major lies in Zoology may take two full years' work, selected from subjects named in the foregoing list.

ENROLLMENT

1898-1899

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

GRADUATE STUDENTS—6

	Home Address
Derby, Florence, B. Ph.....	Columbus
Flickinger, George A., B. Sc. (Agr.).....	York
McLaughlin, Annis, B. Ph.....	Columbus
Rice, Mabel Elise, B. Ph.....	Columbus
Ruhlen, Frank, B. Sc. (Agr.).....	Columbus
Sheldon, Helen Griswold, A. B. (Vassar College).....	Shepard

UNDERGRADUATES—158

	Course	Course Hours	Credit Hours	Home Address
Abbott, Arthur Grant, B. Sc. (Agr.)..	.....	...	.....	Medina
Abbott, Carl B.....	Agr.	206	92½	Medina
Allen, Glen Lloyd.....	Agr. S.	98	13	Washington C.H.
Anderson, Joseph Buchanan.....	Agr. S.	98	101+8	Jewett
Andress, Henry	Agr. S.	98	15	Birmingham
Armstrong, Clara	Dom. Sci.	203	101	Columbus
Atherton, William Thomas.....	Agr. S.	98	51+2	Carrollton
*Beale, Harry Glenn.....	Agr.	206	48	Mt. Sterling
*Beattie, Lena Leota.....	Dom. Sci.	203	91	Zanesville
Beattie, James Herbert.....	Agr. S.	98	39½	Zanesville
Beattie, Rosalie Mae.....	Dom.Sci.S.	90	18	Zanesville
Belden, Herbert Lucius.....	Agr.	204	93	Middlefield
Betts, Adelbert Hayes.....	Dairy	...	...	Kinsman
Blachley, Helen .....	†	...	...	Columbus
Boggs, Howard Shannon.....	Agr. S.	98	49½	Kingston
*Bratton, Alice May.....	Dom. Sci.	203	95	Columbus
Breckenridge, William Kemper.....	Agr. S.	98	48+5	Watertown
Brinker, Thomas William.....	Agr. S.	98	110+4	Chatham
*Bundy, Lyman Edmund.....	H. & F.	203	*29	Colerain
Byers, William Gerald.....	Agr. S.	98	38	Lilly Chapel
Candy, Ella Belle	†	...	12	Columbus
Carl, Harry W.....	Agr. S.	98	25	Spanket
*Church, James Scott.....	Agr.	206	21½	Palmyra
*Clark, Herman Alfred.....	H. & F.	206	41	Medina
Clawson, Lucy Blanch.....	Dom.Sci.S.	90	45	Okeana
Clawson, Clarence, B. Sc. (Agr.).....	.....	...	...	Okeana
*Clevenger, Charles Henry.....	Agr.	206	73	Fletcher
Coates, Elsie Mae.....	Dom.Sci.S.	90	28	Columbus
Comstock, Allen L.....	Dairy	...	...	West Richfield
Cotton, Edwin Charles.....	Agr. S.	98	94+15	Elyria
Crabb, James Byel.....	Agr. S.	98	42	Mt. Sterling
Crawford, Mary B.....	Dom. Sci.	203	144	Blaine
Dallas, John Thomas.....	Agr.	204	145	Pine Valley

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
*Davis, Vernon Hayes.....	Agr.	204	175	Byesville
Davis, Ella Augusta.....	Dom.Sci.S.	90	45	Constantia
Day, Albert Edward.....	Agr.	206	48½	Mt. Carmel
*Demorest, Herbert Russell.....	Agr.	206	76	Columbus
Dennington, Wilbur Stanley.....	Dairy	...	...	Deckard, Pa.
*Dixon, Eva Nichalson.....	Dom. Sci.	203	64	Columbus
Dovel, Boyton	Agr. S.	98	36½	Pickerington
*Dresbach, Mary	Dom. Sci.	203	93	Columbus
Durkee, Ray H.....	Dairy	...	...	North Eaton
Ensign, Ernest Henry.....	Dairy	...	...	Parkman
Erf, Oscar, B. Sc. (Agr.).....	...	...	...	Monroeville
Everett, Solomon Johnson.....	Dairy	...	...	Nelson
Finlay, Thomas Kirkwood.....	Agr. S.	98	66+4	Keene
*Finlay, Annetta Jane.....	Dom. Sci.	203	51	Keene
*Fippin, Elmer Otterbein.....	Agr.	204	187	Galloway
Fisher, Margaret Willmina.....	Dom.Sci.S.	90	16	Columbus
Fitts, Rollin	Dairy	...	...	Elyria
*Foster, Emma Warwick.....	Dom.Sci.S.	90	45	Higbys
*Foster, John Cook, Jr.....	Agr. S.	98	35+1½	Columbus
Frazier, Samuel Hamlin.....	Agr. S.	98	...	Nashport
*Galehouse, David William.....	Agr.	204	126	Doylestown
Gibson, Herbert R.....	Dairy	...	...	Camp Chase
Gilmore, Walter Hayes.....	Agr. S.	98	70+23	Millersport
Gilmore, William Henry, B. Sc. (Agr.) .....	...	...	...	Millersport
Gladding, Maynard Marcus.....	Agr. S.	98	123	Windsor
*Greenlee, James Ross.....	Agr.	206	35	Bridgeport
*Griffith, Winford Irving.....	Agr.	206	...	Constantia
*Hamilton, Frank Edward.....	Agr.	206	44	Brownsville
Hamilton, Henry Hoge.....	Dairy	...	...	Brownsville
Hard, Jesse M.....	Agr. S.	98	36	Olentangy
Harn, George U., Jr.....	†	...	2	Columbus
*Harper, Merritt	Agr.	204	104	Grove City
*Hayden, Cassius Clay.....	Agr.	204	144	Oakdale
Heath, Harry Rogers.....	Dairy	...	...	Ft. Wayne, Ind.
Hershey, Benjamin Westheffer.....	Agr. S.	98	22	Easton
Hess, Flora Louise.....	Dom.Sci.S.	90	50	North Columbus
*Hill, Mamie Faye.....	Dom. Sci.	203	57	Columbus
Holloway, Carrie	Dom.Sci.S.	90	27	Columbus
Holmes, Ernest	Dairy	...	...	Wooster
Hoover, Louis Curtiss.....	Agr. S.	98	15	Ira
Imes, Marion, B. Sc. (Agr.).....	...	...	...	Bashan
Immell, Woodford Elias.....	Agr. S.	98	16	Chillicothe
Irvine, James	Agr. S.	98	55	Richmond
Jackson, Walter Charles.....	Dairy	...	...	Andes, N. Y.
Jennings, Otto Emery.....	Agr.	206	50	Olena
Johnston, Fred Symes, B. Sc (Agr.)... ..	...	...	...	Ashtabula
Jones, J. Lewis.....	Agr. S.	98	54	Penfield
Jones, Lloyd	Agr. S.	98	52½	Columbus
Kelly, Galena May Belle.....	†	...	34	Columbus
Kelley, William Lester.....	Agr. S.	98	79+13	Newark
Kent, Mary	Dom.Sci.S.	98	...	Cleveland

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
King, John Clarence	Agr. S.	98	...	Fremont
Kirk, Edward Cassius	Agr.	206	39	Ashland
Klein, Henry Stephen	Agr. S.	98	...	Ironton
*Kolbe, Lawrence Albert.....	Agr.	204	95½	North Amherst
Ladrach, Lewis Frederick.....	Dairy	...	...	Rogersville
*Liles, Frederick William.....	Agr.	206	50	Collins
Long, Frank Clark.....	Agr. S.	98	50+12	West Sonora
Long, Frederick Pontius.....	Agr. S.	98	78+5	Kingston
Marion, Walter Jerid.....	Agr. S.	98	62+3	Amanda
Marshall, Ida	Dom. Sci.	203	39	Hemlock
Mason, Arthur Devillo.....	Agr.	204	93	Wellington
*Mayers, Mayme Louise.....	Dom. Sci.	203	5	Columbus
Meek, Eunice	Dom.Sci.S.	90	40	Afton
Meiche, Louis	Agr. S.	98	53	North Royalton
Mergler, Jacob Cornelius.....	Agr. S.	98	58	Mt. Washington
Metcalf, Walter Charles	Agr. S.	98	40+9	Temple
Miller, Henry Alexander.....	Agr. S.	98	8	Gypsum
Miller, Merritt Finley	Agr.	204	179	Ridpath
Miner, Charles Austin.....	Agr. S.	98	53+5	Bristolville
Montgomery, Frank	†	...	2	Columbus
Mooney, Charles Napoleon.....	Agr.	204	166	Milan
Mull, Ernest Clinton.....	Agr. S.	98	23+5	Lebanon
*Murray, Edna Earl.....	Dom. Sci.	203	94	Columbus
Murray, John B.....	Dairy	...	...	Penfield
McCall, Arthur Gillet.....	Agr.	204	153	McGaw
McClellan, John Arthur.....	Agr. S.	98	79+8	Cable
McClure, William W.....	Agr. S.	98	28½	Union City, Ind.
McKay, Welden Nickerson.....	†	...	47	New Burlington
*McLaughlin, Harrold	H. & F.	206	16	Columbus
McMahon, Mary Gertrude.....	Dom.Sci.S.	90	30	Columbus
*McOwen, James, Jr.....	H. & F.	204	120	Ovid
McOwen, Thomas	Agr. S.	98	40+21	Ovid
*Neill, Nelson Prentice	Agr.	204	89	Venice
Nettleton, Edward	Agr. S.	98	59+15	Medina
Newton, Sheldon Watrous	†	...	77	Boardman
Osborn, Alice	Dom. Sci.	203	51	Cadiz
Palmer, Roland Jay	Agr. S.	98	92+1	Penfield
Perry, Elma Brooks.....	Dom. S.	203	119	Troy
*Perry, John Cole.....	Agr.	204	120	Columbia Sta.
Phillips, John Howard.....	Agr. S.	98	...	Centerburg
Pierce, Benjamin Manly.....	Agr. S.	98	74+41	Ringgold
Postle, Carlton David.....	Agr. S.	98	30+4	Alton
*Postle, Florence	Dom. Sci.	203	48	Camp Chase
*Postle, Stuart A.....	Agr.	204	86	Camp Chase
Reno, Mell Lewis.....	Dairy	...	...	Clark
*Reppert, Alda Cora.....	Dom. Sci.	203	23	Columbus
Rexroth, Roy Abraham.....	Agr. S.	98	16	Bucyrus
Ridinger, John Gilbert.....	Agr. S.	98	100	Kalida
*Riley, Valeria	Dom. Sci.	203	92	Washington C.H.
*Robert, John Livingston.....	Agr.	204	113	Vaughnsville
Ruhlen, La Mott.....	Agr. S.	98	62+19	Plain City

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
Sayre, Eliza Morgan	†	...	3	Columbus
*Schaeffer, Freelan Wilbert.....	Agr.	204	124	Spanker
Senter, Pearl	†	...	12	Shepard
Shaw, Edward Lee.....	Agr.	206	49	Newark
Shippee, Henry George.....	Dairy	...	...	Spraguev'le, N.Y.
*Sigrist, John Larkum.....	Agr.	204	55½	Congress
Skiles, Blanche Gertrude.....	Dom. Sci.	203	73½	Shelby
Smith, Leon D.....	Dairy	...	...	Mantua
*Snyder, Addison Hogan.....	Agr.	204	101	Tacoma
*Solether, Charles Franklin	Agr.	206	19	Jerry City
*Steward, Charles Benjamin.....	Agr.	204	167	Marcy
Taylor, Frederic Wellington.....	Agr.	204	155	Wooster
*Thompson, Benjamin Sells.....	Agr.	206	11	Wallsburg
Thompson, Edith Leontine.....	Dom.Sci.S.	90	10	Huron
Trowbridge, Warner Wesley.....	Agr. S.	98	53	Painesville
*Tyler, Fred J.....	H. & F.	204	159	Perry
*Uncapher, Jesse Darius.....	Agr. S.	98	55	Marion
Vandament, Orin Lee.....	Agr. S.	98	10	Hamersville
Vickery, John Bateman.....	Dairy	...	...	Rosscarberry, Ir.
Ward, Harry William.....	Agr. S.	98	48	Columbus
Warden, Leonard C., B. Sc. (H. & F.) .....	...	...	...	Avon
Weisman, Laura Anna.....	Dom. Sci.	197	142	Columbus
Whitman, Charles Henry.....	Dairy	...	...	Doylestown

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

GRADUATE STUDENTS--27

	Home Address
Allen, Lucy, B. A.....	Columbus
Ball, Emma Leanna, M. Sc.....	Ironton
Benson, Clarissa W., B. A.....	Gambier
Blakiston, Mary, B. Ph.....	Columbus
Boyd, Emma, B. Ph.....	Columbus
Brown, Frank, A. B. (Macalester College)	Columbus
Claypoole, Charlotte Lake, B. Ph.....	Columbus
Clements, Frank Orville, M. A. (Otterbein University).....	Westerville
Detmers, Freda, M. Sc.....	Columbus
Dresbach, Melvin, B. Sc.....	Kingston
Flynn, Oscar R., B. Sc.....	Columbus
Frankham, Charles R. (Otterbein University)	Westerville
Fullmer, Edward Lawrence, B. Sc.....	Defiance
Hendricks Benjamin Murphy, A. B. (Denison University).....	Newark
Hirst, Anna Brewster (Antioch College)	Yellow Springs
Jeffrey, Maud Dorothy, B. Ph.....	Columbus
Kersey, William Rufus, B. A. (Earlham College).....	Columbus
Kirby, Harriet Rebecca, B. A.....	Columbus
Kohr, Donald Alexis, B. Ph.....	Westerville

* Preparatory work incomplete.

† Special — not a candidate for a degree.

Home Address

Maag, Benjamin (Wooster University).....	Mt. Eaton
Meek, Edward D., B. A.....	Glencoe
Milne, Alexander M. A. (B. D., Yale University)	Duluth, Minn.
Osborn, Raymond Carroll, B. Sc.....	Columbus
Parker, John Bernard, B. A.....	Danville
Rasor, Samuel Eugene, B. Sc.....	Clayton
Scott, Daisy M., B. A.....	Columbus
Williams, Herbert Oswald, B. A.....	Columbus

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

UNDERGRADUATES—371

	Course	Course Hours	Credit Hours	Home Address
Abbott, Roy A.....	E. Ph.	128	107	Columbus
*Adams, Elizabeth Jane	Arts	126	36	Columbus
*Adams, Margaret E.....	Arts	126	23	Columbus
Allaman, Ranson Perry.....	†	...	10	Trotwood
Anderson, John Milton	†	...	65	Greenville
Andress, Edna Alice.....	M. L. Ph.	126	56	Birmingham
Armstrong, Lucy Ruth.....	†	...	5	Hayesville
*Ash, Ray Charles.....	Med.	100	20	Ashland
Baird, Burgess Clay.....	L. Ph.	126	62	Troy
Baldwin, Elizabeth Grant, B. Ph....	.....	...	...	Columbus
Baldwin, Fredericka Hull.....	E. Ph.	128	48	Columbus
*Baldwin, Harry John.....	Journalism	98	33	Beverly
*Ball, Danforth Ewers.....	Science	129	74	Columbus
Barcus, Eliza	Arts	126	84	Columbus
*Bargar, Frederick Chase.....	Journalism	98	7	Columbus
Barnet, Clarence Elwood.....	†	...	80	New Paris
*Barrow, Ernest Manasseh.....	E. Ph.	128	34	New Vienna
*Barrows, Edward Morley.....	Journalism	98	21	Columbus
*Beatty, Carroll E.....	E. Ph.	128	56	Columbus
Beck, Edwin Long	L. Ph.	126	54	Lithopolis
*Beckman, Minnie Rose.....	†	...	37	Columbus
*Beer, James Anderson.....	Med.	100	29+17	Ashland
Bell, Florence Louise	E. Ph.	128	102	Columbus
*Bellows, Gertrude Halm	E. Ph.	128	36	Columbus
Benson, Julia P.....	†	...	3	Gambier
Biederwolf, Charles Lewis.....	†	...	21	Columbus
Bigelow, Leslie L.....	Arts	126	34	Columbus
Bittner, William Pitt.....	Journalism	98	32	Sandusky
Bock, Harry W., B. Ph.....	.....	...	...	Canton
*Booth, Cora Vrooman	L. Ph.	126	18	Columbus
Bostwick, Homer Z.....	Arts	126	96	Columbus
Bostwick, Valeria	Arts	126	32	Columbus

* * Preparatory work incomplete.

† Special—not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
*Bowles, John Porter.....	Journalism	98	32	Columbus
Brandt, James Herbert, B. A.....	.....	...	...	Greencastle
Braun, Bertha Elizabeth.....	L. Ph.	126	...	Columbus
*Brooks, Stanley Grange.....	Science	129	33	Columbus
Brown, Albert Marion.....	†	...	61	Wauseon
Brown, Jessie L. P.....	Arts	126	24	Columbus
*Bruce, Horace V.....	M. L. Ph.	126	44	Eaton
Bryant, William Cheney.....	†	...	28	King's Creek
Burgess, James Henry.....	†	...	69+17	Big Horn, Wy.
*Burkey, Charles Paul.....	Journalism	98	27+2	Pleasantville
*Burris, Margaret May.....	M. L. Ph.	126	40	Columbus
*Butcher, Frederic Eric.....	E. Ph.	128	124	Buckland
Butler, Blanche Woodruff.....	Arts	126	63	Wellsville
Canfield, Dorothea Frances, B. Ph.....	.....	...	...	Columbus
*Cannon, Anna Cathrine.....	Journalism	98	64	Columbus
Carmack, Caroline Martha.....	Arts	126	9	Columbus
*Carothers, Wilson Roy.....	Science	129	11	Sidney
Carpenter, Jessie Marie.....	E. Ph.	128	28	Columbus
Carpenter, Hattie Harrison.....	†	...	14	Columbus
Carr, Emma Perry.....	L. Ph.	126	32	Coshocton
*Carson, Nellie Eliza.....	L. Ph.	126	53	Harrisburg
*Chamberlain, Robert M.....	Science	129	49	Columbus
*Chaney, James William.....	E. Ph.	128	27	Columbus
*Chase, M. Elizabeth.....	L. Ph.	126	29	Columbus
*Clagett, Arthur E.....	Science	129	28	Dayton
Clapp, Katharine B.....	†	...	34	Norwalk
Clum, Harry Ernest, B. Ph.....	.....	...	...	Thornville
Cockerill, Orville P.....	†	...	34	Washington C.H.
Cockins, Rutherford Hayes.....	E. Ph.	128	96	Columbus
Colgan, Lillian Katharine.....	Arts	126	61	Columbus
*Collins, Walter Scott.....	Arts	126	72	Columbus
*Connolley, Augusta.....	L. Ph.	126	32	Columbus
*Connor, Alice Marie.....	E. Ph.	128	83	Columbus
Connor, Ellen Josephine.....	E. Ph.	128	96	Columbus
Converse, Walter, B. A.....	.....	...	...	Plain City
Corner, Edith.....	L. Ph.	126	52	Columbus
Cotton, Frank W.....	Med.	100	33	Dayton
Coursalt, Ida Mae, B. Ph.....	.....	...	...	Columbus
Courtright, Elizabeth Pauline.....	Arts	126	76	Columbus
Courtright, J. Loring.....	Arts	126	107	Circleville
Courtright, Stella Van.....	L. Ph.	126	61	Columbus
Cummings Lawrence Belding.....	†	...	48	Columbus
*Cureton, Benjamin Fletcher.....	Arts	126	55	Columbus
*Davis, William Edgar.....	Arts	126	28	Columbus
Dean, Wilbur Spencer.....	†	...	27	Warsaw
De Frees, John Kessler.....	Arts	126	53	Troy
*De Nune, Ethel.....	Arts	126	26	Columbus
Derby, Alice G.....	L. Ph.	126	68	Columbus
*Determan, Hugo Philip.....	Journalism	98	58	Columbus
*Dever, Louisa.....	M. L. Ph.	126	71	Portsmouth
Dickinson, Thomas Herbert, B. Ph...	.....	...	...	Columbus

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
Dickinson, George Codwice.....	Arts	126	70	Columbus
Dill, Augusta Dille	E. Ph.	128	111	Columbus
Dollison, Harvey Clinton	Med.	100	98+17	Zanesville
*Dolson, Benjamin Reimmund.....	E. Ph.	128	...	Lancaster
Donovan, Dennis Aloysius.....	E. Ph.	128	34	Columbus
Douth, Ida Helen	†	...	11	Athens
Dowd, Charles Fuller.....	M. L. Ph.	126	109	Toledo
*Dubois, Wilbur L.....	Science	129	38	Cincinnati
Dufour, Alice	E. Ph.	128	86	Columbus
*Durstine, Florence Sarles.....	Arts	126	74	Columbus
Eagleson, John Hervey.....	Arts	126	88	Columbus
Eagleson, Joseph Pentecost.....	Arts	126	87	Columbus
Easton, Ernest Doane.....	Science	129	77	Springboro
*Ebright, Bessie	E. Ph.	128	17	Columbus
Eisenbise, Bertha	E. Ph.	128	96	Columbus
*Elsey, Raymond Amos.....	M. L. Ph.	126	24	Plain City
*Enlow, Charles Bates.....	E. Ph.	128	100	Bridgeport
Euans, William Weldon.....	E. Ph.	128	61	Columbus
*Evans, Thomas Daniel.....	Journalism	98	50	Newark
Ewalt, Clara Converse.....	E. Ph.	128	70	Columbus
*Falkenbach, Lydia	E. Ph.	128	25	Columbus
*Fawcett, Charles Fearnley.....	Science	129	21	Salem
*Figley, Mary Myrtle	M. L. Ph.	126	26	Marysville
Fisher, Ida May.....	L. Ph.	126	94	Columbus
Flanagan, Curran E.....	†	...	30	Kenton
Fleming, Joseph Hamilton.....	Science	129	34	Olentangy
Foster, Asa Emmanuel.....	Arts	126	24	New Salem
Fox, Ross Garfield.....	E. Ph.	128	71	Columbus
*Fullerton, Rutherford	Journalism	98	8	Columbus
*Gagle, Lafayette Matthias.....	E. Ph.	128	15	New Bremen
Gale, Irene	†	...	12	Columbus
*Game, Francis Harvey	E. Ph.	128	26	Can. Winchester
Games, Benjamin Herschel.....	†	...	4	Richwood
Gamper, Hattie.....	M. L. Ph.	126	88	Columbus
*Gardner, Frank I.....	Science	129	10	Worthington
Gauch, James Arlando	Arts	126	32	W. Manchester
Gayman, Charles Welton.....	E. Ph.	128	90	Can. Winchester
Geren, Helen Onata.....	E. Ph.	128	85	Columbus
*Godman, Leroy Hayes.....	Journalism	98	25	Columbus
Good, Paul Revere, B. A.....	.....	...	...	Westerville
Gordon, Sarah Bryarly	†	...	46	St. Mary's
*Gorham, Ira Garfield.....	Arts	126	16	Perrysville
*Gorman, Edward Albert.....	Arts	126	20	Columbus
*Graham, Reuben Jacob	E. Ph.	128	41	Northup
*Grant, Earl Cranston.....	Journalism	98	11	Grove City
*Green, Nellie Vitura.....	L. Ph.	126	72	Columbus
Greener, Gussie Howe.....	L. Ph.	126	66	Columbus
Gregg, Lillie	†	...	34	Triadelphia
Griswold, Edwin Viets.....	Arts	126	24	Worthington
Grovenbery, Ella.....	†	...	...	Columbus
Gruen, Frank William, B. Ph.....	.....	...	...	Columbus

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
Gudenkauf, August B.....	Science	129	28	Sidney
Guittard, Claude B.....	M. L. Ph.	126	20	New Bedford
*Guy, Rodney Foos.....	M. L. Ph.	126	29	Plain City
Hains, Edna Esther.....	Arts	126	32	Bloomington
*Hambleton, Ethel Ada.....	L. Ph.	126	60	Columbus
Hardy, Caroline Church.....	†	...	19	Columbus
Harris, Charles Pearl, B. Ph.....	.....	...	...	West Liberty
Hartsough, Jessie Glenada.....	L. Ph.	126	10	Columbus
Harward, Arthur Byron.....	Arts	126	82	Columbus
Hatton, Edna Bernice.....	L. Ph.	126	48	Columbus
Hauk, Will Comrie.....	Science	129	55	S. Charleston
*Hayward, Claudius Cadot.....	E. Ph.	128	10	Ironton
*Hazelton, Henson Marlow.....	E. Ph.	128	64	New Straitsville
Hendrickson, Bertha Edna.....	†	...	...	Columbus
Herrman, Jennie.....	†	...	14	Worthington
Herrick, Sara Ethel.....	E. Ph.	128	52	Wellington
Hicks, Nellie.....	Arts	126	62	Centerburg
Hicks, Mary Chapple.....	L. Ph.	126	22	Columbus
Hirsch, Rudolph.....	Science	129	57	Columbus
Hoffhines, Ralph Eugene.....	L. Ph.	126	...	Columbus
Hoffman, Hattie De Long.....	E. Ph.	128	81	Columbus
*Holcomb, Harry John.....	Arts	126	58	Columbus
*Holston, John George Frederick....	†	...	38	Zanesville
Holine, Mose A.....	†	...	29	Columbus
Hoover, Fred R., B. Ph.....	.....	...	...	Columbus
Hopkins, Bertha Marie.....	L. Ph.	126	21	Columbus
Hopkins, Clara M.....	L. Ph.	126	20	Columbus
*Hopkins, Edith Estelle.....	L. Ph.	126	29	Columbus
*Houghton, Henry Spencer.....	†	...	64	Columbus
Howard, Anna Faye.....	L. Ph.	126	118	Columbus
Huddleson, Mabel Lee.....	†	...	8	Columbus
*Hudson, Clara P.....	E. Ph.	128	24	Middleport
Huffman, Lillian Stuart, B. Ph....	.....	...	...	Columbus
Huggins, Burch Delaptaine, B. Ph...	.....	...	...	Hillsboro
Hungelmann, Arthur.....	Science	129	34	Columbus
*Hunt, Mary Fulton.....	L. Ph.	126	68	Columbus
*Hunt, Wallace Leedom.....	Science	129	39	St. Paris
*Hunter, Anna Eliza.....	M. L. Ph.	126	38	Columbus
Hurst, Lulu Kate.....	†	...	6	Piketon
*Huston, Frank Arilda.....	M. L. Ph.	126	52	Columbus
Hyneman, Rebecca Sara.....	†	...	7	Columbus
*Jackson, Faye Marie.....	E. Ph.	128	19	Columbus
†Jameson, Plyn C.....	Med.	100	10	Avon
Jaynes, Allan Brown.....	E. Ph.	128	111	Columbus
Jeffrey, James Fred.....	Science	129	92	Columbus
Jeffrey, John Ralston.....	†	...	82	Huron
*Jenkins, Thomas Lewis.....	Arts	126	2	Plain City
*Jennings, Elma.....	Science	129	26	Eaton
Johnson, Edith Cherry.....	†	...	16	Columbus
Johnson, Lucy H.....	†	...	10	Worthington

* Preparatory work incomplete.

† Special — not a candidate for a degree.

‡ Died October, 1898.

	Course	Course Hours	Credit Hours	Home Address
*Jones, Daniel C.....	E. Ph.	128	26	Jackson
*Jones, Edgar Lloyd.....	E. Ph.	128	37	Columbus
*Jones, Helen Perley.....	E. Ph.	128	22	Columbus
*Jones, John William.....	E. Ph.	128	56	Jackson
Jones, Richard Thomas.....	L. Ph.	126	107	Columbus
Jones, Victor Waite.....	E. Ph.	128	71	Columbus
Karshner, George Melville.....	Arts	126	91	Columbus
Kauffman, Henrietta Christine.....	M. L. Ph.	126	56	Columbus
*Kauffman, Margaret Glenn.....	M. L. Ph.	126	47	Columbus
Keating, David Thatcher, B. Ph.....	.....	.....	.....	Columbus
Kellerman, Karl Frederick.....	Science	129	109	Columbus
Kinder, Gordon Donald.....	E. Ph.	128	85	Ottowa
*King, Bernice.....	Arts	126	24	Columbus
King, Robert James, B. A.....	.....	.....	.....	Zanesville
Klein, David.....	†	.....	102	Columbus
Knight, Caroline Estell.....	E. Ph.	128	78	Columbus
Kunkle, Fred Raymond.....	M. L. Ph.	126	24	Bryan
Kutz, Mabel.....	†	.....	8	Milo
*Laybourn, Lawrence E.....	Journalism	98	38+12	Springfield
Lehman, John Wesley, B. Ph.....	.....	.....	.....	Can. Winchester
*Lentz, Florence.....	M. L. Ph.	126	43	Marysville
Lisle, Charles Howard.....	E. Ph.	128	83	Pataskala
Lisle, Dallas Gypsi, B. Ph.....	.....	.....	.....	Columbus
Lisle, Leslie Mac, B. Ph.....	.....	.....	.....	Columbus
Logsdon, Carey Ligouri, B. Ph.....	.....	.....	.....	Columbus
*Loren, Mary.....	L. Ph.	126	21	Columbus
Luse, Jessie Edna.....	E. Ph.	128	99	Columbus
Lyons, Nellie.....	E. Ph.	128	24	Columbus
Machwart, Washington J.....	†	.....	34	Fredericksburg
Mann, Wilbur Edwin, B. Ph.....	.....	.....	.....	Morrisville
Markel, John Riegel.....	†	.....	20	Adelphi
*Marriott, Robert Henry.....	Science	129	63	Richwood
Martz, Velorus.....	Arts	126	66	Columbus
*Meade, Caroline Annis.....	M. L. Ph.	126	43	Columbus
Merkle, Albert Edward.....	Med.	100	31	Chillicothe
*Miller, Charles Reed.....	E. Ph.	128	26	Bellville
Miller, Fred A.....	E. Ph.	128	67	Columbus
Miller, Gretchen Pauline.....	E. Ph.	128	103	Columbus
*Mitzenberg, Allena May.....	L. Ph.	126	64	Columbus
Mock, Marcia Inez.....	L. Ph.	126	66	Columbus
Moloney, William Patrick.....	†	.....	34	Prospect
Moon, Victor Clarence.....	M. L. Ph.	126	83	Farmer's Station
Moore, Edgar Howard.....	Science	129	107	Columbus
*Morgan, Roy.....	E. Ph.	128	34	Greenland
*Muirie, Frederick John.....	Arts	126	28	Youngstown
Mumma, Marion W.....	Science	129	72	Dayton
Mundhenk, Herbert C., B. Ph.....	.....	.....	.....	Brookville
Mundhenk, Ruth, B. Sc.....	.....	.....	.....	Dayton
Murdock, George Washington.....	E. Ph.	128	101	Carroll
*McAllister, Earl Saddler.....	E. Ph.	128	65	Columbus
McCallum, Raymond.....	E. Ph.	128	88	Dayton

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	Course	Course Hours	Credit Hours	Home Address
McDonald, Joseph Sylvester.....	E. Ph.	128	63	Rendville
*McGrew, Elizabeth Leanna.....	E. Ph.	128	36	Columbus
*McIntire, Clifford Samuel.....	E. Ph.	128	28	Ortonville, Mich.
McKelvey, Ralph Huntington.....	Arts	126	43	Sandusky
McKinney, Frank C.....	Arts	126	72	Columbus
McLaughlin, Clarence Graham.....	L. Ph.	126	62	Columbus
McLaughlin, Robert H.....	†	...	39	Fostoria
Nash, Simeon.....	Arts	126	64	Columbus
*Neiderhouse, Charles Henry.....	L. Ph.	126	...	Perrysburg
Neiswander, Lisle W.....	Med.	100	51	Grove City
*Nesbitt, David M.....	Journalism	98	27	Bellaire
Nichol, Gertrude Bell, B. Ph.....	.....	.....	.....	Columbus
Nichols, Ada May.....	M. L. Ph.	126	34	Chillicothe
*Norris, John S.....	M. L. Ph.	126	38	Columbus
Ort, Mary Elizabeth.....	†	...	10	Ironton
Orton, Samuel Toney.....	Science	129	49	Columbus
Osborn, Abner Andrews.....	Science	129	94	Columbus
*Parmenter, William Watt.....	Arts	126	94	Mt. Vernon
*Parsons, George McLellan.....	L. Ph.	126	61	Columbus
*Partridge, Bert Mitchell.....	Journalism	98	22	Flint
Patterson, Bertha Gildersheve.....	Arts	126	72	Columbus
*Pavlicek, Frank J.....	L. Ph.	126	55	Toledo
*Peoples, Emmet W.....	Arts	126	21	Pomeroy
Pitts, Grace Lenore.....	L. Ph.	126	98	Columbus
*Plum, Harley Martin.....	Arts	126	28	Ashville
*Pocock, Lucy Hunt.....	E. Ph.	128	34	Columbus
*Poole, Loren Winfield.....	E. Ph.	128	62	DeGraff
*Poorman, John D.....	Journalism	98	...	St. Paris
*Porter, George Henry.....	L. Ph.	126	58	N. Philadelphia
Potts, Helen Georgiana.....	†	...	12	Columbus
*Powell, Cornelia.....	Arts	126	24	Columbus
*Prince, Frank Joseph.....	Science	129	44	Millerstown
Pulling, Margaret Glaze.....	L. Ph.	126	88	Columbus
*Pumphrey, Josiah Merton.....	Med.	100	33	Martinsburg
Raymond, Maud, B. Ph.....	.....	.....	.....	Columbus
*Raymond, Maybelle.....	E. Ph.	128	42	Columbus
Redrow, Clara M.....	M. L. Ph.	126	19	Williamsburg
Redrow, Walter Leffingwell.....	Science	129	105	Williamsburg
Rees, Edith Celeste.....	Arts	126	68	Columbus
*Reese, David R.....	Arts	126	52	Shawnee
Reinhard, Frank J., Jr.....	E. Ph.	128	40	Columbus
Reütinger, Ernest Victor.....	Med.	100	31	Chillicothe
Rice, Susan Esther, B. A.....	.....	.....	.....	Columbus
Richardson, William Waddle, B. Ph.....	.....	.....	.....	Columbus
Rickey, Tallmadge Archer.....	E. Ph.	128	94	Columbus
*Ridenour, Walter Ashton.....	Journalism	98	24	Jackson
Rietz, Henry Lewis, B. Sc.....	.....	.....	.....	Gilmore
*Rittenhouse, Pearle Gertrude.....	L. Ph.	126	28	Ostrander
Roach, Simeon Andrew, B. Ph.....	Chillicothe
Robbins, George A., B. Ph.....	Columbus
Rockwell, Mary Fannie, B. Ph.....	Columbus

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	Course	Course Hours	Credit Hours	Home Address
*Rodocker, Oris Calvin.....	Arts	126	...	Hicksville
Roebuck, Carl Fletcher.....	E. Ph.	128	103	Dalton
Rogers, Frank P., B. A.....	.....	...	...	Columbus
*Rogers, John B.....	Journalism	98	22	Fostoria
*Rogers, Pennock B.....	Med.	100	...	Columbus
Roney, Mary Malvina.....	L. Ph.	126	66	Columbus
*Rushton, Norman.....	E. Ph.	128	32	Selkirk, Ontario
Sackett, Carl Leroy.....	†	...	67	Big Horn, Wyo.
Sackett, Walter George.....	Science	129	27	Columbus
*Sadler, Anna Belle.....	L. Ph.	126	37	Columbus
Sayre, Charles Boyd.....	Arts	126	98	Columbus
Scarlett, Henry L.....	Arts	126	66	Columbus
Schaff, Mae B.....	L. Ph.	126	94	Columbus
*Schantz, Albert J.....	Science	129	28	Dayton
*Schille, Clara Margaret.....	E. Ph.	128	27	Columbus
Schoedinger, Ferdinand P.....	Arts	126	38	Columbus
*Schönthal, Derso Clarence.....	E. Ph.	128	25	Columbus
Scott, Dudley.....	E. Ph.	128	90	Columbus
*Settle, Howard.....	Med.	100	...	Grove City
Seymour, Raymond Jesse.....	Science	129	96	Columbus
*Shaw, Harry R.....	E. Ph.	128	47	Zanesville
Singleton, Charles T.....	E. Ph.	128	79	Columbus
Sleeper, Ethel Burson.....	L. Ph.	126	18	Columbus
*Sloan, Charles A.....	Journalism	98	17+3	Columbus
Smart, George Alexander.....	E. Ph.	128	2	Dayton
Smith, Albertine Charleen.....	E. Ph.	128	105	Columbus
*Smith, Harold Osborn.....	L. Ph.	126	26	Columbus
Smith, Virginia Roletta.....	E. Ph.	128	104	Columbus
*Snow, Mason Jay.....	Journalism	98	26	Columbus
*Snyder, Arthur Talmadge.....	Arts	126	28	Paris
*Sparks, Homer H.....	Journalism	98	56+3	Columbus
Spencer, Ralph Oliver, B. A.....	.....	...	...	Columbus
*Sperry, Wilmot, Jr.....	E. Ph.	128	57	Mt. Vernon
Sprague, William Ralph, B. Ph.....	.....	...	...	Columbus
*Staley, Homer F.....	Arts	126	32	Columbus
Stanton, Frederic Moses.....	Med.	100	16	Ridgeville
Stauffer, Clinton.....	Science	129	96	Columbus
Steeb, Carl E., B. Ph.....	.....	...	...	Medina
Stephenson, Bertram Sheaver.....	L. Ph.	126	58	Jackson
*Stevenson, Ray David.....	L. Ph.	126	24	Fostoria
*Stewart, Gilbert Holland, Jr.....	Journalism	98	18	Columbus
Stimmel, Branson Claud.....	†	...	32	Columbus
Stimson, Charles Leslie, B. A.....	.....	...	...	Columbus
Stimson, George.....	Arts	126	91	Columbus
Sullivan, Oscar M.....	Arts	126	36	Columbus
*Swaney, Sara C.....	Journalism	98	20	East Liverpool
*Swift, Samuel Ferguson.....	E. Ph.	128	34	Jackson
Taylor, Bessie Battelle.....	L. Ph.	126	38	Columbus
*Taylor, William Harry.....	E. Ph.	128	37	Columbus
*Teter, Millicent.....	M. L. Ph.	126	12	Columbus
Theobald, Clara Freya.....	†	...	18	Columbus

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	Course	Course Hours	Credit Hours	Home Address
Thomas, Lawrence David.....	L. Ph.	126	92	Lancaster
*Thompson, King Gibson.....	E. Ph.	128	68	Georgetown
*Tilton, Josephus Howard.....	E. Ph.	128	79	Jelloway
*Travis, Fred L.....	Arts	126	77	Pana, Illinois
*Travis, John F.....	Arts	126	82	Green Camp
*Turner, Bertha Lewis.....	M. L. Ph.	126	9	Columbus
*Van Sciever, Mae.....	E. Ph.	128	31	Columbus
*Veneman, Nevin Edward.....	Journalism	98	52+3	Dayton
Vinson, Albert E.....	†	...	80	Columbus
Wallace, Manch J.....	Arts	126	16	Columbus
Walsh, Frances Lyon.....	Arts	126	29	Columbus
Ward, Lila Lucile.....	L. Ph.	126	68	Reynoldsburg
Wagner, Bertha Emma.....	†	...	2	Belle Center
Ward, Philip Emerson, B. Ph.....	...	...	...	Willoughby
Webster, Howard.....	†	...	32	Dayton
Weick, Carrie Rosina.....	Science	129	67	Columbus
*Weld, Harry Porter.....	L. Ph.	126	86	Marysville
*Welling, Cornelia Faith.....	Arts	126	64	Worthington
*Wells, Harry B.....	Arts	126	28	Columbus
Wells, Jessie Laurretta.....	†	...	...	Millgrove
Wertz, Edward Sleser, B. Ph.....	...	...	...	Dalton
West, Earl Downs.....	Arts	126	92	Columbus
*Whitaker, William Earl.....	E. Ph.	128	57	Wauseon
*White, Carroll Agnew.....	L. Ph.	126	21	Marysville
Whiteside John Wesley.....	E. Ph.	128	46	Bloomingsburg
William, Anna E., B. Ph.....	...	...	...	Jackson
Williams, Clara Maude.....	M. L. Ph.	126	87	Columbus
Williams, Elza Young.....	Science	129	72	Pomeroy
*Wilson, Lewis Ernest.....	E. Ph.	128	60	Columbus
Wilson, Stella S.....	†	...	2	Columbus
Worcester, Wood Frank, B. Ph.....	...	...	...	Columbus
Young, Dallas A.....	†	...	26	Dayton
Young, John Wesley, B. Ph.....	...	...	...	Columbus
Young, Mary Grace.....	M. L. Ph.	126	98	Mt. Vernon

COLLEGE OF ENGINEERING

GRADUATE STUDENTS—6

	Home Address
Hale, Frederick James, M. E.....	Mogadore
Hewitt, Strafford Reeves, M. E. in E. E.....	Columbus
Judd Horace, M. E.....	South Hadley Falls, Mass.
Krumm, Louis Ralph, M. E. in E. E.....	Columbus
McIntire, Alfred Heber, M. E. in E. E.....	Mt. Vernon
Snively, Harry H., B. A.....	Columbus

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UNDERGRADUATES—338

	Course	Course Hours	Credit Hours	Home Address
*Abbott, Donald Coleman.....	E. E.	220	5	Columbus
*Albery, Herman William.....	C. E.	214	25	Columbus
Alford, Arthur Milton	M. E.	220	94+4	Windham
*Ames, Holiday.....	C. E.	214	34+3	Ashland
*Armstrong, William Wirt.....	M. E.	220	...	Woodsfield
*Arnold, Charles H.....	M. E.	220	56	New London
*Arons, Richard Demront.....	E. E.	220	2	Columbus
Atkinson, Warren, M. E.....	.....	...	...	Greenville, S. Ca.
*Bailey, Edward Harding.....	M. E.	220	60	Damascus
Bailey, Ervin George	E. E.	220	47	Damascus
Balcomb, Charles	Chemistry	202	41	North Ridgeville
*Balz, Ernest	C. E.	214	48	Columbus
*Balz, Louis Christian Frederick.....	C. E.	214	47	Columbus
*Barringer, John Martin	Chemistry	202	60	Washington, D. C.
Barringer, Lawrence Eugene.....	Ceramics	207	143+5	Washington, D. C.
*Barry, William John.....	C. E.	214	38	New Straitsville
*Bauer, Louis E.....	E. E.	220	30+5	Springfield
*Baughman, Norman	E. E.	220	42	Roseville
Baumann, John Carl Bernhardt.....	Mining S.	91	59+8	Gütersloh, Germ.
*Bäuroth, Walter John.....	M. E.	220	53	Springfield
*Beach, Charles Wesley.....	E. E.	220	42	Geneva
Beauchamp, Earl G.....	M. E.	220	...	Hamilton
*Bedwell, Charles Francis.....	E. E.	220	20	Columbus
Berkey, Leslie Reese.....	Ceramics S.	90	84+5	Bolivar, Pa.
Berndroth, Geary Martin.....	E. E.	220	42	Geneva
Billingsley, Robert Wallace.....	M. E.	220	54	Lisbon
Bischoff, John Wallace, E. M.....	.....	...	...	ElkGarden, W. Va.
Bleining, Albert Victor.....	†	...	120	Columbus
Blose, Miller L.....	E. E.	220	206	Urbana
Boehme, Adolph Joe.....	M. E.	220	103+3	Youngstown
Bogardus, Evert	M. E.	220	48	Mt. Vernon
Bohm, Oscar Herman.....	Mining S.	91	91+8	Cleveland
Borger, Charles S.....	M. E.	220	86	Columbus
*Bostwick, Oliver Newton.....	E. E.	220	50+3	Mount Sterling
Bott, George Robert.....	M. E.	220	88	Columbus
*Bowden, Harry William.....	C. E.	214	139	Minerva
*Bowditch, John Henry.....	C. E.	214	83	Tracy
Bowdle, George Frederic.....	M. E.	220	40	Piqua
Bownocker, Francis Marion.....	Ind. Arts S.	96	35	Columbus
Branum, Frank C.....	E. E.	220	36+2	Bridgeport
Britton, Lloyd C.....	C. E.	214	36	Williamsburg
*Brooks, Herbert Barton.....	E. E.	220	58	Piqua
*Brooks, Wheeler Athens.....	E. E.	220	2	Ironton
Brophy, James Francis, E. M.....	.....	...	...	ElkGarden, W. Va.
Butler, John Francis.....	Ceramics S.	90	70+20	Austin, Texas
Bogate, Harry Goldsmith, M. E.....	.....	...	...	Steubenville
Cain, John	Chemistry	202	113	Urbana
*Calkins, Arda Hall.....	Chemistry	202	4	Columbus
Cameron, Harry Ezra.....	C. E.	214	104	Lisbon

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	Course	Course Hours	Credit Hours	Home Address
Campbell, Rollo Wilbur.....	E. M.	208	50	Fostoria
Campbell, Willis Elmer.....	C. E.	214	53	Fostoria
Cannan, William	Ceramics S.	90	45+5	Plymouth
Cappel, William Frederick.....	M. E.	220	...	Dayton
*Caskey, George Alexander.....	M. E.	220	49	Columbus
*Cavanaugh, Andrew Francis.....	M. E.	220	166	Dayton
*Cavin, Frank Thomas.....	E. E.	220	60	Spencer
*Chaffin, Wendel Wilson	C. E.	214	50+12	Dayton
Chandler, Homer Payne.....	E. E.	220	54+13	Columbus
*Chandler, Fred	Ind. Arts	201	44	New Comerstown
*Childs, Maxwell	E. E.	220	18	Troy
Clark, Clarence Julian, C. E.....	.....	...	...	Wilberforce
*Clarke, James Ulrick.....	E. E.	220	54	Lancaster
*Closson, Clayton Drew.....	†	...	126	Galena
Coleman, Albert C.....	Ind. Arts S.	96	18	Windsor
Comstock, Aytch Clay.....	E. E.	220	11	Nelsonville
Connors, John Leo.....	Mining S.	91	15+4	Columbus
Conrad, Verne Louis.....	C. E.	214	44+6	Columbus
*Cooke, Royal Alston	E. E.	220	104+10	Wyoming
Cooley, James Riddle.....	E. E.	220	16	Nelsonville
Cornell, Charles Brown.....	M. E.	220	52	Columbus
Cory, Mark Dee.....	C. E.	214	11	DeGraff
Cosley, Harvey Harter.....	C. E.	214	104	Troy
*Cox, Ross Stillwell.....	M. E.	220	27	Lewisburg
Crabill, Pearl P.....	M. E.	220	66	Springfield
Crable, Arthur.....	C. E.	214	134	Columbus
Crable, George	M. E.	220	50+3	Columbus
*Crumley, Cloise Hamilton.....	E. E.	220	51+7	Lancaster
Cryder, Howard Michael.....	Arch.	154	52	Chillicothe
Curtis, Leigh Goodrich, C. E.....	.....	...	...	Hamilton
Damon, Owen H.....	C. E.	214	139	Hinckley
*Dann, Walter M.....	E. E.	220	54	Columbus
*Davis, Charles L.....	E. E.	220	34	West Alexandria
Davis, George A.....	Ceramics S.	90	76+8	Shawnee
Davis, Thomas John	Ceramics S.	90	30+34	Girard
*Denny, Charles Wampler.....	E. E.	220	89	Middletown
De Wolf, Roger Dennison	E. E.	220	109+6	Madison, Ga.
*Diehl, Joseph A.....	Arch.	154	38+3	Defiance
Dierdorff, Percy Cyrus.....	M. E.	220	53+7	Columbus
Dill, Raymond	E. E.	220	111+5	Columbus
*Dobyns, Harvey Britton.....	E. E.	220	2	Columbus
Dole, Parr H.....	M. E.	220	21	Columbus
Doty, Charles Wilgerson.....	†	...	...	Hanging Rock
*Drummond, William George.....	M. E.	220	152+8	Cleveland
Duke, Carl Lewis.....	E. E.	220	116+6	Ridgeville
Dunlop, Robert Rowse.....	E. E.	217	163	Columbus
*Elliott, Emmett Foster.....	Arch.	154	47	Chesterhill
Elsner, Richard E.....	C. E.	214	39	Newark
*Eno, Imle L.....	E. E.	220	97+5	Pomona, Cal.
Erdmann, William	Ind. Arts	201	162	Chillicothe

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	Course	Course Hours	Credit Hours	Home Address
*Espy, Frank	†	...	58	Kenton
Evans, Charles Hopkins.....	Mining S.	91	40	Evanston
*Falkenbach, Schatz.....	Chemistry	202	4	Columbus
Ferguson, Morse Burton	Ind. Arts	201	...	Hanover
*Ferry, Roy W.....	E. E.	220	...	Leon
Fickes, Walter M.....	Ceramics	207	142	Steubenville
*Flory, Charles Henry.....	E. E.	220	24	Arcanum
*Follett, George Alfred.....	C. E.	214	65	Columbus
Ford, Nile Otis.....	E. M.	208	99	Wheeling, W.Va.
Fornof, Carl William.....	M. E.	220	13	Columbus
Foster, George C.....	E. M.	208	53	Schooley
Fouts, Edgar W.....	E. E.	220	111	Piqua
Frame, Rollo St. Clair.....	C. E.	214	99	Washington
Frankenberg, George T.....	M. E.	220	54	Columbus
Frankenberg, John Theodore, E. E. ....	.....	...	...	Columbus
Frechtling, Arthur George	M. E.	220	107+4	Hamilton
Freer, Will Davis.....	E. E.	220	42	Cortland
Friedland, Francis William.....	Mining S.	91	35+8	Coaltion
Frost, George Winfield	M. E.	220	163	Columbus
Gamper, Herman, M. E.....	.....	...	...	Columbus
*Gates, William Paul.....	Ceramics	207	69+6	Hinsdale, Ill.
George, Robert G.....	E. M.	208	14	Piqua
Geren, Arthur G.....	Mining S.	91	30+10	Columbus
Geren, Harry Ogden	E. E.	220	148+21	Columbus
Gilchrist, Edward Luce.....	E. E.	220	57+3	Ashtabula
*Gleichauf, Frank S.....	Arch.	154	46	Newark
Gottwald, Christian	E. E.	220	117+2	Defiance
Graham, Frank	E. M.	208	38+5	Columbus
*Graham, Harry	E. M.	208	38+12	Columbus
*Gray, Thomas M.....	M. E.	220	25	Pittsburgh, Pa.
Green, Homer Stuart.....	E. E.	220	102	Raymond
Green, Joseph Walter, E. E.....	.....	...	...	Dayton
Hager, Le Roy William.....	C. E.	214	78	Piqua
*Hambleton, Charles Reverdy.....	E. E.	220	...	Hooksburg
Hammond, John Miller	C. E.	214	41+2	Columbus
Hance, Harry Thomas	Chemistry	207	97	Columbus
Hapgood, Eugene Palmer	E. E.	220	78+3	Sabina
*Hardy, Paul	E. M.	208	37	Columbus
Harkins, Robert Rusk	M. E.	220	163	Columbus
Harmer, Frederick Sturges.....	Mining S.	91	15	Columbus
Harper, Ellahue A.....	†	...	15	Columbus
Harrigan, Archer	Mining S.	91	92	New Castle, Pa.
Harris, Emmet	E. E.	220	4	DeGraff
Harrop, Carl	C. E.	214	53	Columbus
Hayman, Will Clayton.....	E. E.	217	165+9	Holgate
Hedges, Benson Rice.....	M. E.	220	88	Columbus
Herms, Albert Edward.....	†	...	50	Columbus
*Herrick, Hobert C.....	M. E.	220	13	Wellington
Herrick, Nellie	†	...	144	Columbus
Hershey, Arthur	Ind. Arts S.	96	5+7	Columbus
Hertner, John Henry, E. E.....	Dayton

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	Course	Course Hours	Credit Hours	Home Address
*Higgs, Howard Clyde	E. E.	220	6	Newark
Hill, Harry Earl	C. E.	214	53	Richwood
Hirabayashi, Seikichi	†	...	3	Nagoya, Japan
Hirst, Harry	M. E.	220	41	Midvale
Hitch, James Frank	C. E.	214	53	Batavia
Holbrook, George Frederic	E. M.	208	36	Bucyrus
*Hord, Peyton Robert	E. E.	220	35+7	Marion
*Huddleson, Frank	M. E.	220	73+7	Columbus
*Hull, Walter Austin	E. E.	220	54	Orangeville
Hunter, Madone Carington	E. E.	217	161+5	Norwich
Huntington, Arthur, M. E. ....	.....	...	...	South Charleston
Ittner, Warren Payne	Ceramics S.	90	88+14	St. Louis, Mo.
*Jacobs, Ronald	Ind. Arts	201	12	Columbus
*James, Frank Richard	E. M.	208	50	Columbus
*Jayne, Walter G.	E. E.	220	22	Springfield
Johnson, Earl S.	E. E.	217	158	Plants
Johnson, Walter A.	M. E.	220	52	Columbus
*Johnston, Howard Charles	M. E.	220	129+4	Rushsylvania
Jones, Howard Martin	E. E.	220	111+2	Marysville
Jones, Herbert Q.	†	...	60	Granville
Kanmacher, Samuel Houston	E. E.	217	170+16	Columbus
*Keating, Harvey Thomas	C. E.	214	48	Columbus
Keller, Daniel Casteel	E. E.	220	54	Washington C.H.
Kern, William Frederick	Chemistry	202	56	Bellaire
Kettering, Charles Franklin	E. E.	220	51	Loudonville
Kettler, Frank Christian	C. E.	214	104+6	New Bremen
King, Francis Emmet	Mining S.	91	53+2	Leisenring, Pa.
*King, Herbert Summer	C. E.	214	145+9	Medina
*Kinnear, Harry Baldwin	E. E.	220	50+5	Mt. Sterling
*Kinnison, Ernest Eugene	C. E.	214	48	Jackson
Kirker, Gaylord B.	Mining S.	91	30	Catlettsburg, Ky.
*Knieling, Charles August	E. E.	220	47	Willoughby
*Knight, William Abner	M. E.	220	190+3	Columbus
*Knoderer, Homer Guy	E. E.	220	55	Columbus
Knouff, Oliver Morton	C. E.	214	43+2	Caldwell
Knox, Frank S.	E. M.	208	160+10	Columbus
†Krause, Wilbur F.	M. E.	220	4	Columbus
Krumm, Thomas Zettler	C. E.	214	43	Columbus
*Laiblin, Garfield	M. E.	220	49	Canton
Lamb, Whitney Earl	E. E.	217	165+6	Commercial Point
*Lampert, John Martin	M. E.	220	58	Xenia
Lee, Corliss Edgar	E. E.	217	185	Pugh Post Office
*Leibold, Carl Peter	E. E.	220	40+6	Columbus
*Leinbaugh, George Gurden	M. E.	220	147+3	Bellevue
*Leith, Harry H.	C. E.	214	34	Wellsville
*Lesh, John Howard	M. E.	220	100	Louisville
*Lied, Ernst Mitchell	E. E.	220	40	Columbus
Linebaugh, Jesse Joseph, E. E. ....	.....	...	...	Pleasant Corners
*Linhart, Frank Clement	C. E.	214	38	Broughton, Pa.
Linville, Clarence Philander	Chemistry	202	147	Urbana

* Preparatory work incomplete.

† Special — not a candidate for a degree.

‡ Died October 29, 1898.

	Course	Course Hours	Credit Hours	Home Address
Lockwood, Howard Thomas.....	C. E.	214	53	Batavia
Lontz, Harley C.....	Mining S.	91	25	South Bend, Ind.
Lyon, Arthur Hollingshead.....	M. E.	220	166	Wauseon
*Marckworth, Otto Stanley.....	†	...	125	Cincinnati
Marietta, Harry Riefsnyder.....	E. E.	220	72+5	Dayton
*Marsh, Charles Lawrence.....	C. E.	214	109	Urbana
Marshall, Willard Beverley.....	E. E.	220	177	Piqua
Martin, John D., Jr.....	M. E.	220	133+12	New Straitsville
Mason, John T.....	†	...	15	Columbus
*Mason, Charles Filmore.....	E. E.	220	43+6	Columbus
*Melick, Neal Albert.....	C. E.	214	155	Columbus
Miller, Albert Arthur.....	E. E.	220	94+18	Zanesville
*Miller, Charles Emit.....	Arch.	154	96+3	Spencer
*Miller, John Franklin.....	E. E.	220	57	Columbus
*Miller, Ralph Charles.....	E. E.	220	91+18	Zanesville
*Monsarrat, Charles R.....	M. E.	220	...	Columbus
*Morlan, Wilbert.....	M. E.	220	41+7	Rogers
Morris, Willard Bernard.....	M. E.	220	47	Columbus
*Morris, William Blaine.....	M. E.	220	54	Massillon
Morris, Robert Hamilton.....	E. M.	208	92+17	Columbus
Myers, Albert B.....	E. M.	208	153+10	Columbus
Myers, Fred.....	C. E.	214	13	Louisville
McEowen, Hugh Ellsworth.....	†	...	26	Greenville
*McFarland, Horace M.....	E. M.	208	53	Columbus
McHugh, Francis.....	Mining S.	91	15	Carrolltown, Pa.
McIntosh, Roscoe Everitt.....	E. E.	220	98+3	Ravenna
McKeon, Robert Dale.....	C. E.	214	41	Arcanum
*McKinney, Earl B.....	Arch.	154	44	Columbus
Needham, Harry Smithson.....	M. E.	220	166+8	Columbus
Nicholson, Charles Marion.....	E. E.	217	158	Columbus
*Nidy, Herbert C.....	E. E.	220	101	Greentown
Nold, John H.....	E. M.	208	153	Columbiana
Nurian, Kerson, M. E.....	...	...	...	Philippopolis, Bulg.
Oakes, James.....	Mining S.	91	15	Jackson Cen., Pa.
Ogbin, Clinton Vanneman.....	C. E.	214	92	Salem, N. J.
Osborn, Liphe Andrews.....	M. E.	220	41	Columbus
Pabodie, Robert J., M. E.....	...	...	...	Wyoming
*Panter, Thomas Alfred.....	E. E.	220	54	Niagara Falls, N.Y.
*Parkin, William Z.....	M. E.	220	48	Columbus
*Parrett, Benjamin Creamer.....	Chemistry	202	45	Washington C.H.
*Patterson, Arthur Law.....	E. E.	220	42	China Grove, N.C.
Peck, Francis J.....	†	...	28	Yellowbud
*Peck, Louis Tucker.....	Ind. Arts	201	81	Staunton, Va.
Peppel, Samuel Vernon, B. Sc.....	Chemistry	...	...	Leetonia
Peterson, John William.....	Arch.	154	...	Port Clinton
Phillips, William Merrian.....	E. E.	220	95+11	Columbus
*Pierce, Robert Clark.....	C. E.	214	4	Tallmadge
Post, Malcolm Phelps.....	Ceramics S.	90	83+6	St. Louis, Mo.
Poto, Frank B.....	Chemistry	202	97	Alliance
Potts, Royal Warren.....	†	...	52	Columbus
Pratt, Fred Kellogg.....	C. E.	214	150	New Philadelphia

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
Purdy, Ross C	Ceramics S.	90	90+50	Buffalo, N. Y.
Ransom, Ralph P.	M. E.	220	94	Mt. Vernon
Rawson, Levi, C. E. ....	.....	...	...	Lisbon
*Reynolds, Carl .....	†	...	...	Columbus
*Riddle, Carlton	M. E.	220	175+15	Columbus
*Riebel, Leroy Clemens.	Arch.	154	13	Columbus
Rightmire Robert Elwood	M. E.	220	72	Wheelersburg
Robbins, Edwin Thurston.	†	...	41	Columbus
Rogers, Rutherford Hayes	E. E.	220	30+3	Columbus
*Roth, Clyde Ervin	E. E.	220	7	Tallmadge
*Roy, Charles Foster	E. M.	208	60+13	Glenroy
*Ryland, Paul Dillen	C. E.	214	119+2	Columbus
Sanderson, Clarence Herbert.	E. E.	220	44	Logan
*Sanderson, Ray Rochester	E. E.	220	54+3	Washington C.H.
*Saxbe, Harry Moody	E. E.	217	74+2	Columbus
Sayers, Delbert Bancroft.	E. E.	220	71+3	Marits
Schaeffer, Arthur	E. M.	208	...	Bucyrus
*Schaff, Harry M.	E. E.	220	40	Columbus
*Schlochtermeyer, Carl Fred	E. E.	220	55	Cincinnati
*Schoenlaub, Thomas Jacob.	C. E.	214	41	Marion
*Schott, Alvin Christian	E. E.	220	26	Massillon
Schreiber, George Ernst.	E. E.	217	163	Ironton
Schreiber, John Martin, E. E. ....	.....	...	...	Ironton
Schwab, Frank Wilber.	Chemistry	202	41	New Philadelphia
Senter, Herbert Pike.	C. E.	214	52	Columbus
Sharp, John McDowell	C. E.	214	16	Columbus
*Shaw, Lucian	C. E.	214	36+3	West Lafayette
*Sheal, Leander	Chemistry	202	4	Steubenville
*Shepherd, Charles William.	C. E.	214	153	Huron
*Sherman, John K.	C. E.	214	110	Columbus
*Sherwood, Frank Porter	E. E.	220	74+8	Ashtabula
Shigley, Clarence Mason	†	...	16	Jamestown
*Shumate, Frank Douglass.	E. E.	220	54	Urbana
Sigrist, Charles Ferdinand.	Mining S.	91	54+7	Congress
Simcoe, George	Ceramics	207	31	North East, Md.
*Simpson, Henry Jerome.	C. E.	214	58+3	Worthington
*Slater, Edward Earl.	Mining S.	91	2	Nelsonville
Slick, Charles Jay.	Mining S.	91	22	Mishawaka, Ind.
Smith, David William, C. E. ....	.....	...	...	Ashland
Smith, Harry Ford.	M. E.	220	54	Lexington
Smith, John Baker.	E. M.	208	24	Tiffin
Smith, James Oliver	E. E.	220	32	Columbus
Sprague, Clarence M., C. E. ....	.....	...	...	Summerford
Sproat, Amasa Delano.	E. M.	208	53+6	Chillicothe
Staley, Marcellus, E. E. ....	.....	...	...	Dayton
Standish, Miles Walter .....	†	...	...	Lima
Starbuck, Carl, E. E. ....	.....	...	...	Barnesville
*Stark, Samuel	Ceramics	207	12	Tunkhannock, Pa.
*Sterling, James Gilman	M. E.	220	67	Springfield
*Stocker, James Arthur.	C. E.	214	49	Gnadenhutten
Stone, Carleton Elijah, C. E. ....	.....	...	...	Gallipolis

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Course	Course Hours	Credit Hours	Home Address
*Stull, Raymond Thomas.....	E. E.	220	44+3	Elkland, Pa.
Sweeney, Paul Leslie.....	E. M.	208	40	Columbus
*Tanners, Edward Wood.....	E. E.	220	54	Zanesville
Taylor, George Edwin	E. E.	220	100+2	Marysville
Thomas, Alfred Redman.....	Mining S.	91	40	Glouster
*Thomas, David A. P.....	Arch.	154	50	Columbus
*Thompson, Ezra John	C. E.	214	47	Kirtland
*Thompson, Ira Albert.....	E. E.	220	20	Cleveland
Trish, George	Mining S.	91	45	Nevada
Tufts, Charles H., E. M.....	.....	...	...	Maineville
Van Dyke, Clifford Steele.....	E. E.	220	105	Ansonia
Voss, Harry Lincoln	Ind. Arts S.	96	15+10	Colo. Sp'gs, Col.
Vosskuehler, Joseph Henry.....	M. E.	220	166+15	Dayton
*Waddell, Starling	E. E.	220	42	Columbus
*Walker, Robert Harris.....	E. E.	220	54	Cincinnati
*Ward, Vernon C., Jr.....	M. E.	220	54	Columbus
*Warwick, Martin Luther	Chemistry	202	...	Seven Mile
Weber, Frederick Clarence	Chemistry	202	79	Evanston
Webster, Ellison Godfrey.....	M. E.	220	86	Greenville, S. C.
Wellbaum, Arvy E.....	E. E.	220	54	Brookville
Wells, Byron Bliss.....	E. E.	220	49	Ostrander
Weyrich, Edward	E. E.	220	7	Dayton
Wheaton, Robert John	E. E.	220	37+4	Columbus
*Whetsel, Emerson Jay.....	C. E.	214	53	Jackson
Whitaker, George Eliot.....	C. E.	214	84	East Liverpool
Wilcox, Carl Clifford.....	M. E.	220	47	Columbus
Williams, Alwin Zelffe.....	†	...	68	Chicago
Williams, Harry Ernest.....	M. E.	220	54	Harlem
Williamson, Homer Davidson.....	E. E.	220	103+26	Monroe
Wilson, James Somerville.....	M. E.	220	109+17	Columbus
Wirthwein, Louis Philip, C. E.....	.....	...	...	Columbus
Wonder, Homer Higgins.....	Chemistry	202	43	Carey
*Woodmansee, Roy David.....	M. E.	220	18	Highland
Worcester, Wolsey G.....	Ceramics S.	90	70+75	Columbus
*Yost, Lloyd	M. E.	220	42	Somerset
*Zbinden, Herman Christian	C. E.	214	87+4	Toledo

COLLEGE OF LAW

UNDERGRADUATES — 191

	Year	Home Address
Addison, Arthur Everett, B. Ph.....	Second	Columbus
Addison, Clarence Maywood, B. Ph.....	Second	Columbus
Allen, Edward Harrison, A. B.....	Third	Lena
Amos, Frank Craig.....	First	Sidney
Armstrong, Russell Livingston	Third	Celina
Armstrong, Thomas H.....	First	Hayesville

* Preparatory work incomplete.

† Special — not a candidate for a degree.

	Year	Home Address
Arnold, Harry Crumley.....	Second	Columbus
Ashman, Frank	First	Coshocton
Austin, John Gustave, B. S.....	Third	Sparta
Baggott, Roland Webb	Second	Dayton
Ball, George Gaylord.....	Third	Columbus
Bamer, Merton Leonard.....	First	Grand Rapids
Barrere, George Nelson.....	Third	Columbus
Bell, James Finley	Third	London
Benedict, Charles Yeddo.....	Second	Mansfield
Benner, Will D.....	Third	Croton
Bininger, James Wolfong.....	Second	Lancaster
Blakesley, Philip	First	Dayton
Bockius, Harry Graham.....	Third	Canton
Bond, Charles Grosvenor.....	Third	Columbus
Bowers, Walton S.....	First	Hamilton
Brandt, James Herbert.....	First	Greencastle
Brewer, Charles Reed.....	Third	Bowling Green
Bright, Frederick Ijams.....	Second	Logan
Brumbaugh, Robert Nevin.....	Second	Dayton
Burgett, Willard M.....	Third	Salineville
Byers, William E.....	Second	Loudonville
Calkins, Frank Ellwood.....	Second	Grand Rapids
Carlisle, John Franklin	Third	Crestline
Cary, Charles Ross.....	Second	Millersburg
Carey, John T.....	First	Upper Sandusky
Chambers, Lyman K.....	Second	Genoa
Clark, Alexander B.....	Third	Canton
Clark, Clarence J.....	Special	Wilberforce
Cline, Walter Dew	Second	Dayton
Clum, Harry Ernest	Second	Thornville
Clutch, A. Ward, B. A.....	Third	Alcony
Courtright, Thurman Thomas.....	Second	Greencastle
Cox, Milton S.....	First	Sheldon
Crawford, William Harry	Second	Massillon
Curran, Bernard Franklin.....	First	Corning
Curtis, Leigh Goodrich.....	Special	Hamilton
Dally, John Randolph.....	Third	Centerburg
Darby, Roscoe Bryant.....	Second	Wauseon
Davidson, George Edwin.....	Third	East Liverpool
Dawson, Nathan Charles.....	First	Columbus
Deppen, Charles	Third	.....
Devol, Marion Luther.....	Third	Flint
DeWitt, Claude B.....	Second	Sandusky
Dille, Charles Wallace.....	Third	Nottingham
Donley, Russell Lee.....	Second	West Bedford
Doud, Harry L.....	First	Norwalk
Downing, Earl Summerville.....	First	Middleport
DuBois, Aaron Smock.....	Second	Franklin
Duff, Alfred L.....	Second	Port Clinton
Dunlap, Carl Reed.....	First	Columbus
Emmerling, John Valentine.....	First	Wauseon
Farnham, Harry Rathburn.....	Second	Edgerton
Fiébel, Louis	First	Hillsboro

	Year	Home Address
Finlay, Thomas Kirkwood.....	First	Keene
Flory, Charles Lewis.....	Third	Newark
Forsythe, John Lewis.....	Second	Cumberland
Frankenberg, Don Juan.....	First	Tempe, Arizona
Friedlich, Alfred	Second	Troy
Galloway, Arthur Clyde.....	First	Columbus
Game, Reed Haskell.....	Third	Canal Winchester
Gebhard, August Louis	First	Edgerton
Goddard, Edwin Newell.....	Second	Ashtabula
Godown, Joseph A.....	Third	Hilliards
Graven, D. Homer, A. B.....	Second	Nashville
Graff, Warren Noble, B. A.....	Third	Tiffin
Gross, Charles John.....	Third	Dayton
Gruen, Frank William.....	Third	Columbus
Haberer, Harry Andrew.....	First	Dayton
Hahn, Howard Edward.....	Third	Coshocton
Halverstadt, Herbert	First	Columbiana
Hamilton, Joseph Edson.....	First	Columbus
Hammond, Frederic Mathas.....	First	Smithfield
Hammond, Frank Nathan.....	First	Smithfield
Harvey, Arlington C., B. Ph., M. A.....	Third	Zanesville
Heacock, Irvin Francis, A. B.....	First	Alliance
Hershey, Harry Hartman	Second	East Greenville
Hoover, Frederic R.....	Second	Quincy
Hoover, George A.....	Third	Canal Fulton
Hough, Benson Walker.....	Third	Delaware
Howells, George A.....	Second	Massillon
Huggins, Burch Delaplaine.....	First	Hillsboro
Jacobs, Horace K.....	Second	Waynesville
Jahn, Nan	Second	Columbus
Jennings, Irwin G.....	Third	Zanesville
Jones, Bertram George.....	Second	Columbus
Jones, Charles Clark	Second	Wooster
Jones, Hanby Raymond.....	First	Westerville
Kellison, Edward Lafayette	Second	Quincy
Kinney, Harry B., B. Sc.....	Third	Belmont
Krupp, William E.....	Third	Uhrichsville
Lacey, Emmet	Third	Columbus
Lane, Quinton R.....	Second	Canal Winchester
Lash, Henry Lloyd.....	First	Bolivar
Lehman, John Wesley.....	First	Canal Winchester
Lloyd, Erastus Guy.....	First	Westerville
Malone, Francis Eastman.....	Second	Conneaut
Mallow, Lewis Earl	First	Washington C. H.
Mattingly, Herbert Howard.....	Second	Celina
Mays, James Wesley, B. Ph.....	Second	South Point
Meier, William Henry	Second	Mt. Carmel
Meily, Warren Paul.....	First	Lima
Minshall, Thaddeus Ellis.....	First	Chillicothe
Minshall, William Edwin.....	Second	Chillicothe
Mithoff, George D.....	First	Lancaster
Moore, Henry Curtis.....	Second	Bainbridge
Morgan, Lewis W.....	Second	Gibsonburg

	Year	Home Address
Morris, Ingle Alman.....	Second	Columbus
Myers, Milo L.....	Third	Marysville
McCleary, Clayton Asa, B. Ph.....	Second	Science Hill
McClure, Robert Edward.....	Second	Dayton
McCoy, Frank Lewis.....	Third	Salineville
McCray, Thomas Yates, Jr.....	Second	Mansfield
McLaughlin, Clarence G.....	First	Columbus
Nicola, Benjamin Di.....	Second	Barnhill
Nicholas, William Renfrew.....	Second	Columbus
Nicholas, John C.....	Second	St. Clairsville
Orton, Walter Edwin.....	Third	Will'msto'n, Mass.
Osborn, Francis Coates.....	First	Columbus
Outhwaite, Singleton Peabody.....	Third	Columbus
Paisley, Jay S.....	Third	Irondale
Pease, Edward Livingston, B. A.....	Third	Columbus
Peck, Foreman Jacob.....	Second	Clarksburg
Pence, William D.....	First	Columbus
Polk, Winfred Whittington.....	Second	New Vienna
Poole, Loren Winfield.....	First	DeGraff
Poorman, John D.....	First	St. Paris
Porter, Burton Perlee.....	Third	Canal Fulton
Postlewait, Neal, A. B.....	Third	Valier, Pa.
Price, Thomas Daniel.....	Third	New Straitsville
Rawson, Levi.....	Special	Lisbon
Reed, Bert.....	First	Piqua
Reeves, Claude John.....	Second	Columbus
Roller, George Ellis.....	Second	Greencastle
Sackett, Carl Leroy.....	First	Big Horn City, Wyo.
Schlesinger, Hugo Nathan.....	Third	Xenia
Schwenk, William Jennings, B. A.....	Second	Kenton
Seney, Allen Joshua, Ph. B.....	Third	Toledo
Seney, George Ebbert, Jr.....	First	Toledo
Shaw, John William.....	First	Troy
Shepherd, George Harvey.....	First	Dayton
Shipman, Leonard H.....	Third	Troy
Skiles, Roscoe Carleton.....	First	Shelby
Smart, George Alexander.....	First	Dayton
Smith, Charles Rylatt.....	First	Huron
Smith, David William.....	Special	Ashland
Smith, Warren Lee.....	Third	Columbus
Smith, Wellington Cornell.....	First	Lytle
Southworth, Ferdinand Leek.....	Second	Alliance
Sprague, Charles Franklin, B. A.....	Third	Wapakoneta
Sprague, Clarence M.....	Special	Summerford
Sprague, William Ralph.....	First	Columbus
Stevenson, Amos Claude, A. B.....	First	Fostoria
Stiger, Thomas A.....	Third	Bucyrus
Stone, Carlton Elijah.....	Special	Gallipolis
Stoolfire, Henri Stanton.....	Second	Columbus
Stough, Luther Bertrand.....	Third	Bellefontaine
Strecker, George William.....	Third	Marietta
Sullivan, J. Clarence.....	First	Columbus
Tangemann, Theodore H.....	First	Kettleville

	Year	Home Address
Tanner, John Robert.....	First	Mt. Sterling
Thompson, George S.....	Third	Smith's Ferry, Pa.
Toland, Harford Aquilla.....	Second	Columbus
Turner, Edward C.....	First	Columbus
Van Sciever, Armand L.....	First	Grove City
Voegelé, William Frederick, Jr.....	Second	Mansfield
Wakefield, George W.....	First	Reynoldsburg
Warden, Hosea Gilford.....	First	Columbus
Ware, J. Walter.....	First	Dayton
Watkins, Howard Rice.....	Second	Blanchesfer
Weidling, Carl Philip.....	Third	Tiffin
Welsh, Harford Burnette.....	Third	Columbus
Wertz, Edward Sleser.....	First	Dalton
West, Frederick Rollin.....	First	Columbus
Wharton, Homer Franklin.....	First	Washington
Wheeler, Newberry William, Jr.....	First	Portland
Wildermuth, Andrew LeRoy.....	Third	Columbus
Williams, Lloyd Thomas, B. Ph.....	Second	Jackson
Williamson, Allen Thurman, A. B.....	First	Grandview
Wirthwein, Louis Philip.....	Special	Columbus
Woods, Charles Howard.....	Second	Chillicothe
Worcester, Wood Frank.....	First	Columbus
Worman, Horace Dye.....	First	Dayton
Wulff, August R.....	First	Dayton
Yockey, Paul B., B. A.....	Second	Columbus
Zimmer, Frank A.....	Third	St. Paris

COLLEGE OF PHARMACY

GRADUATE STUDENTS—1

	Home Address
Landacre, Walter Alexander, G. Ph.....	Columbus

UNDERGRADUATES—34

	Course	Course Hours	Credit Hours	Home Address
Bowen, Charles Flood	+	...	119	Columbus
Bradshaw, Harry James.....	Short	112	103+24	Columbus
Burr, Frank Henry.....	+	...	96	Columbus
Burt, Charles Conway.....	Long	206	59	Coshocton
*Canfield, Delos Wilford, Jr.....	Long	206	75	Chardon
Clelland, Franklin Pierce.....	Short	112	68+3	Lockville
Day, Clayton Miller.....	Short	112	110+9	Blanchester
Foster, George Gruel.....	Short	112	58	Columbus
Funk, Roy William.....	Short	112	109+9	Chesterhill

* Preparatory work incomplete.

	Course	Course Hours	Credit Hours	Home Address
Gape, Arthur Garfield.....	Short	112	23	Ashtabula
Gardner, Charles Alfred.....	Short	112	53	Danville
Harvey, Lucy Manola.....	Short	112	54+55	Pomeroy
Hess, Ada E.....	Short	112	13	Bloomingsburg
Holloway, David Frank.....	Long	206	139	Middletown
Huff, George Harry.....	Long	206	149	Middletown
Johnson, William Noel.....	Short	112	103+9	Piqua
Kathe, John Bernard.....	Short	112	110+7	Circleville
Kerr, Franklin Pierce, Jr.....	Short	112	110+6	Columbus
Kimberly, Charles Hubbell.....	Long	206	144+24	North Fairfield
Knowlton, Fred A.....	Short	112	15	Granville
Lallance, Leroy Armstrong, Jr.....	Short	112	85+9	Wheeling, W.Va.
Milligan, Herbert Ray.....	Short	112	...	Columbus
Naddy, Charles Joseph.....	Short	112	90+3	Columbus
Peck, James Francis.....	Short	112	71+4	Columbus
Potter, Lewis Hall.....	Short	112	96+14	Columbus
Rostofer, Freeman Allen.....	Short	112	105+6	Pataskala
Sandoe, DeNevin.....	Short	112	46+2	Columbus
Sellenings, Oscar.....	Short	112	43+24	Chillicothe
Swimley, Asbury Carlton.....	Short	112	18	Forest
Trump, August C.....	Short	112	...	Pherson
Vonderan, Charles Leo.....	Short	112	38	Waterford
Wagstaff, Harry Garfield.....	Long	206	82+5	Niles
Williamson, Frank Elwood.....	Short	112	5	Greenville
Young, Cyrus Homer.....	Long	112	47	Wooster

COLLEGE OF VETERINARY MEDICINE

GRADUATE STUDENTS—1

Home Address.

Brumley, Oscar Velos. D. V. M.....	Townwood
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UNDERGRADUATES—11

	Course	Course Hours	Credit Hours	Home Address
*Detchon, Aubrey Bloxsom.....		178	168	Youngstown
Eddy, William		177	123	East Cleveland
*Griffin, Frank		177	111	Columbus
*Hammond, Harry James.....		177	120	Sharon Center
*Irwin, Albert N.....		177	57	Columbus
*Johnson, Jay Clement.....		177	18	Big Plain
*Johnson, Theodore Charlemagne.....		177	68	Akron
*Metzger, Edward Louis.....		177	46	Louisville
*Morrow, Charles James.....		177	120	Tiro
*Sparhawk, William Theron.....		178	171	Tallmadge
Umberger, Lee		177	...	Wytheville

* Preparatory work incomplete.

SUMMER SCHOOL—34

1898

Allen, Lucy	Columbus
Bowman, Perla G.	Toledo
Boyd, Emma	Columbus
Bradshaw, Mabel	Ravenna
Detmers, Freda	Columbus
Dufour, Alice	Columbus
Drummond, William George	Cleveland
Durham, Josephine	Danville
Erf, Oscar	Monroeville
Gale, Irene	Columbus
Given, Ernest	Sidney
Graham, Emma	Sidney
Haig, Mary	Columbus
Hock, Lulu	Philo
Ingram, Imogene	Columbus
Kanmacker, Houston	Columbus
Keagle, Anna B.	Columbus
Knight, William Abner	Columbus
Knopf, Eva S.	Columbus
Lewis, Magdalen	Granville
Lewis, James Henry	Gallipolis
Lynch, Elizabeth	Greenville
Mullay, Rose	Columbus
Naddy, Elizabeth Helen	Columbus
Rankin, Harriet Minerva	Columbus
Scott, John Willard	Huntington, W. Va.
Smith, Russel Bigelow	Ripley
Stephan, Edward Valentine	Sardinia
Tooill, George Washington	New Bremen
Vinson, Albert Earl	Columbus
Voke, Mabel	Columbus
Waddell, Starling	Columbus
Winchet, Frances Isabelle	Dayton
Wright, Helen	Columbus

GENERAL SUMMARY

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE—		
Graduate Students	6	
Undergraduates	158	
COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE—		164
Graduate Students	27	
Undergraduates	371	
COLLEGE OF ENGINEERING—		398
Graduate Students	6	
Undergraduates	338	
COLLEGE OF LAW—		344
COLLEGE OF PHARMACY—		191
Graduate Students	1	
Undergraduates	34	
		35

COLLEGE OF VETERINARY MEDICINE—

Graduate Students.....	1	
Undergraduates	11	12
		<hr/>
Summer School, 1898		34
		<hr/>
Total		1,178
Names counted twice		29
		<hr/>
Net total		1,149

SUMMARY BY COUNTIES.

Allen	2	Guernsey	4	Morrow	2
Ashland	9	Hamilton	8	Muskingum	16
Ashtabula	11	Hardin	4	Noble	1
Athens	6	Harrison	3	Ottawa	4
Auglaize	6	Henry	1	Perry	12
Belmont	13	Highland	3	Pickaway	5
Brown	5	Hocking	2	Pike	1
Butler	10	Holmes	2	Portage	6
Carroll	1	Huron	9	Preble	7
Champaign	13	Jackson	12	Putnam	4
Clark	8	Jefferson	8	Richland	8
Clermont	7	Knox	15	Ross	21
Clinton	8	Lake	6	Sandusky	2
Columbiana	15	Lawrence	11	Scioto	3
Coshocton	10	Licking	17	Seneca	9
Crawford	7	Logan	9	Shelby	6
Cuyahoga	9	Lorain	14	Stark	20
Darke	7	Lucas	6	Summit	7
Defiance	4	Madison	13	Trumbull	6
Delaware	7	Mahoning	5	Tuscarawas	12
Erie	11	Marion	5	Union	14
Fairfield	19	Medina	11	Vinton	1
Fayette	10	Meigs	9	Warren	8
*Franklin	426	Mercer	3	Washington	5
Fulton	5	Miami	19	Wayne	13
Gallia	2	Monroe	1	Williams	3
Geauga	3	Montgomery	37	Wood	5
Greene	4	Morgan	6	Wyandot	3

SUMMARY BY STATES AND COUNTRIES

(As far as known)

Arizona	1	Japan	1	Ohio	1067
Bulgaria	1	Kentucky	1	Ontario	1
California	1	Maryland	1	Pennsylvania	10
Colorado	1	Massachusetts	2	South Carolina	2
Georgia	1	Michigan	1	Texas	1
Germany	1	Missouri	2	Virginia	1
Illinois	3	New Jersey	1	Washington, D. C.	2
Indiana	4	New York	4	West Virginia	5
Ireland	1	North Carolina ..	1	Wyoming	2

* Nearly forty-two per cent. of the students registered from Franklin county are those whose homes are at Columbus only during their University course.

OCCUPATIONS

OF THE PARENTS OF STUDENTS WHO HAVE ENTERED THE
UNIVERSITY SINCE SEPTEMBER, 1895.

Abstractor	1	Lake marine.....	2
Architects	4	Laundryman	1
Bakers	2	Lawyers	89
Bankers and brokers.....	36	Lecturer	1
Barbers	2	Liquor dealers.....	2
Blacksmiths	3	Liverymen	3
Book-keepers	10	Machinists	9
Brewers	1	Manufacturers	100
Butchers	4	Masons	9
Carpenters	24	Merchandise, dealers in (not other-	
Cemetery superintendents	2	wise specified).....	178
Circuit judge	1	Mechanics	11
City officials	5	Metal workers	5
Clerks	3	Miners	10
Coal dealers	13	Ministers	32
Collector	1	Musician	1
College presidents	2	Padmaker	1
County officials	16	Painters	2
Dairymen	14	Piano tuner.....	1
Day laborers	17	Photographer	1
Decorators	2	Physicians	77
Dentists	3	Plasterers	4
Dressmakers	2	Printers	5
Druggists	16	Private corporation officials.....	9
Electricians	2	Potter	1
Engineers (civil).....	9	Publishers	2
Engineer (mechanical).....	1	Railway employes.....	46
Engineer (mines).....	1	Real estate	31
Engineers (stationary).....	3	Retired	33
Express agents.....	3	Saloonkeeper	1
Farmers	561	Shoemakers	3
Florist	1	Silver-gilder	1
Furnace builder.....	1	State officials	12
Geologist	1	Stenographer	1
Glassblower	1	Stock dealers	6
Grain dealer	1	Tailors	6
Government service.....	14	Tanners	2
Hotels and restaurants.....	11	Teachers	38
Horse dealer.....	1	Transfer	3
Ice dealer.....	1	Traveling salesmen	50
Insurance	29	Township clerk	1
Janitors	2	Undertakers	6
Jewelers	5	Veterinary surgeon	1
Journalists	21	Watchman	1

GRADUATES

GRADUATES

The faculty of the Ohio State University are anxious to place a copy of each annual catalogue in the hands of every graduate. They will esteem it a favor if any alumnus who changes his residence will notify the Executive office of his new address and occupation. They will also be grateful for any information from any source, that may assist in making or keeping the Directory of the Alumni complete and correct.

ALUMNI ASSOCIATION

OFFICERS FOR 1899-1900

WILLIAM WHITE KEIFER, '86, Springfield.....	<i>President</i>
HERMAN S. BRONSON, '97, Columbus.....	<i>Vice-President</i>
MRS. CHARLES WING, '80, Columbus.....	<i>Secretary</i>
FRANK A. RAYMOND, '88, Columbus.....	<i>Treasurer</i>
JOSEPH S. MYERS, '87, Pittsburg, Pa.....	<i>Orator</i>
G. GLEN ATKINS, '88, Greenfield, Mass.....	<i>Alternate</i>

COMMITTEE ON COLLEGE AFFAIRS

WALTER J. SEARS, '94, Chillicothe.....	Term expires	1900
FLORIZEL SMITH, '80, Columbus.....	"	1901
MRS. HARRY I. ABBOTT, '93, Columbus.....	"	1902
LORING HAPGOOD GODDARD, '92, Sullivan, Ind.....	"	1903
KARL T. WEBER, '97, Columbus.....	"	1904

COMMITTEE ON NECROLOGY

WILBY G. HYDE, '87, Chillicothe.....	Term expires	1900
LOWRY F. SATER, '95, Columbus.....	"	1901
DAISY M. SCOTT, '87, Columbus.....	"	1902

DIRECTORY

A

- Abbott, Arthur Grant, 1899, B. Sc. (Agr.), Medina.
- Ackerman, Eli Osborn, 1884, C. E., 2664 North High street, Columbus, Columbus Street Railway Co.
- Ackerman, Fremont, 1883, C. E., Los Angeles, Cal., civil engineer.
- Addison, Arthur Evert, 1895, B. Ph., Columbus, teacher East High School.
- Addison, Louis Granville, 1892, LL. B., Columbus, attorney-at-law.
- Addison, Clarence Maywood, 1896, B. Ph., Columbus, teacher Central High School.
- Agler, Eulalia, 1895, G. Ph., Columbus, with Columbus Pharmica! Company.
- Albert, Louisa Mary, 1896, G. Ph., Mrs. A. E. Vinson, Columbus.
- Aldrich, Chester H., 1888, B. A., LL. B., David Citv. Neb., attorney-at-law.
- Aldrich, Edgar S., 1897, M. E. in EE., Westerville, secretary and manager Westerville Electric Light Co.
- Alexander, St. Clair, 1893, M. E. in EE., Bridgeport.
- Alexander, Charles P., 1896, M. E. in EE., Letart Falls, teacher of science.
- Allaman, William Ernest, 1896, G. Ph., Brookville.
- Allen, Edward Harrison, B. A. (Ohio Wesleyan University), 1899, LL. B., Lena.
- Allen, Lucy, 1897, B. A., Columbus, library assistant, State University.
- Alsdorf, Percy Reed, 1896, E. M., Central City, Col., Standard Assay office.
- Alsdorf, Frederick Charles, 1892, E. M., Central City, Col., general manager, Duquesne Mining Co.
- Alspach, Rufus Edwin, 1897, M. A. (B. A. Heidelberg), Thornville.
- Anderson, James T., 1884, B. A., Colorado Springs, Col., 1st Lieutenant U. S. Army.
- Anderson, Newton M., 1879, B. Sc., Cleveland, Principal of the University School.
- Andrews, Albion Joseph, Jr., 1893, LL. B. (B. S., Ohio Wesleyan University), Zanesville.
- Andrews, Lincoln Elmer, 1893, LL. B., 1895, B. Ph., Columbus, attorney-at-law.
- Armstrong, Edna, 1897, B. Ph., Columbus.
- Armstrong, William H., 1890, G. Ph., Marysville, druggist.
- Arnold, Charles Lincoln, 1890, B. Sc., 1894, M. Sc., West Eighth ave., Columbus, assistant professor in mathematics, State University.
- Arnold, Edwin E., 1898, M. E., Westinghouse Machine Co.
- Atkins, G. Glenn, 1888, B. A., Greenfield, Mass., pastor Congregational Church.
- Atkinson, Warren, 1899, M. E., Greenville, S. C.
- Auld, James A., 1897, M. E. in EE., Columbus, with D. S. Auld, 76 East Gay street.
- Austin, John Gustave, 1899, LL. B., Sparta.

B

- Bachtell, Nellie May, 1895, B. A., New London, teacher.
- Backhaus, Henry Ward, 1894, B. A., Wapakoneta, cashier People's National Bank.
- Baer, Philip, Jr., 1897, B. Sc. (Agr.), Gratiot, creamery operator.

- Bagley, Anna Gertrude, 1894, G. Ph., Columbus.
- Baker, James Burt, 1898, LL. B., Salem.
- Baker, John Ezra, 1897, B. A., 1898, LL. B., St. Paris.
- Baker, William Hollister, 1892, B. Agr., Farmersville, Mo., farmer and stock raiser.
- Baldwin, Elizabeth Grant, 1899, B. Ph., Columbus.
- Baldwin, Zoa Belle, 1896, B. A., Prospect, teacher in High School.
- Ball, Emma Leanna, 1895, B. Sc., 1896, M. Sc., Columbus, fellow in mathematics, State University.
- Ball, Fred S., 1888, B. Ph., Montgomery, Ala., attorney-at-law.
- Bancroft, Gay, 1898, B. A., Columbus.
- Barcus, Miner, 1897, M. E. in EE., Schenectady, N. Y., with General Electric Company.
- Barlow, Helen M., 1898, B. Ph., Columbus.
- Barnaby, Charles L., 1898, C. E., Columbus.
- Barnaby, Josephine, 1896, B. Ph., Warren, teacher.
- Barrows, Harry* Holbrooke, 1898, C. E., Lexington, Ky., engineer on Queen & Crescent Ry.
- Bartholomew, Clyde Stanley, 1896, C. E., Zanesville, civil engineer B. & O. Ry.
- Basterdes, Ada Mabel, 1890, B. Ph., Plano, Ill., teacher in High School.
- Bates, Josephine M., 1881, B. Ph., Mrs. Florizel Smith, Columbus.
- Bates, Wesley C., 1882, LL. B., 35½ N. High street, Columbus, attorney.
- Baughman, George W., 1897, G. Ph., Leipsic.
- Beach, David Price, 1895, C. E., Wellsville, in employ of Pennsylvania Railroad.
- Beach, Margaret Alice, 1891, B. Ph., Mrs. Wilson Holman, Bayonne, N. J.
- Beardsley, Orasmus D., 1898, B. Ph., Garrettsville.
- Beattie, William Renick, 1894, B. Sc., 1897, M. Sc. (in Horticulture), Columbus florist.
- Beck, Arthur Andrew, 1893, C. E., Columbus, county surveyor's office.
- Belden, Sanford Bonner, 1895, E. M., Chicago, Ill., with Chicago Electric Mining Engineering Co.
- Bell, Mary Edith, 1894, B. Ph., St. Paul, Minn., teacher in High School.
- Bennett, Henry C., 1890, B. A., 100 Washington street, Chicago, Ill., attorney-at-law.
- Bennett, Samuel E., 1890, D. V. M., Kansas City, Mo., Gov't Meat Inspector.
- Bently, William Preston, 1885, B. Agr. (B. A. 1890, M. A. 1893, Bethany College) 15 Miller Road, Shanghai, China, missionary.
- Bertsch, Joseph Franz, 1896, LL. B., Columbus.
- Bibbee, George E., 1897, LL. B. (A. B., Ohio Wesleyan University), Columbus.
- Biebel, Herman Matthews, 1896, M. E. in EE., Chicago, Ill., electrical engineer with Western Electric Co.
- Bischoff, John Wallace, 1899, E. M., Elk Garden, W. Va.
- Bissing, William, 1893, M. E. in EE. (A. B., John's Hopkins University), Washington, D. C., examiner in U. S. patent office.
- Blackburn, Frank H., 1896, M. E. in EE., Tres Piedras, N. M., Supt. Buckeye Mica Mining Co.
- Blair, Edward Grey, 1895, G. Ph., Shawnee, pharmacist.
- Blakiston, Anna Houston, 1897, B. Ph., Mrs. Powell, Pittsburg, Pa.
- Blakiston, Mary, 1893, B. Ph., Columbus, teacher in East High School.
- Blinn, Ray S., 1893, B. S.
- *Bloom, Edwin M., 1893, B. Sc., died, 1894.
- Bloom, J. George, 1889, C. E., Cincinnati, assistant engineer B. & O. S. W. Ry.
- Bloomfield, Lloyd Morris, 1891, B. Agr.

- Bock, Harrison W., 1898, LL. B., 1899, B. Ph., Canton.
- Bockius, Harry Graham, Ph. B. (Yale University), 1899, LL. B., Canton.
- Bodman, Mary E., 1898, B. Ph., Bement, Ill.
- Boesche, Felix John, 1896, G. Ph., New Bremen.
- Boesel, Frank Tilden, 1896, B. Ph., student, Harvard Law School.
- Bogue, Ernest Everett, 1894, B. Sc. H. & F., 1896, M. Sc., Professor of Botany and Horticulture, Agricultural and Mechanical College, Norma, Okla.
- Bond, Charles Grosvenor, 1899, LL. B., Columbus.
- Bone, John H., 1893, B. Sc., 1896, B. Sc. (Agr.), assistant in Agriculture, Agricultural and Mechanical College, Norma, Okla.
- Booth, Lucy Adelaide, 1892, M. A. (B. A., Ohio Wesleyan University), 1894, Ph. D., Columbus.
- Bope, George W., 1897, LL. B., Columbus, third assistant director of Law.
- Bower, Jerome G., 1897, M. E., Dennison, P., Ft. W. & C. R. R.
- Bownocker, John A., 1889, B. Sc., 1897, D. Sc., Columbus, associate professor in Inorganic Geology, State University.
- Boyd, Emma, 1888, B. Ph., 38 W. Woodruff ave., Columbus, teacher in the North High School.
- Boyd, James G., 1897, D. V. M., Columbus.
- Boyd, James Ellsworth, 1891, B. Sc., Columbus, assistant professor of Physics, State University.
- Boyd, Martin L., 1897, LL. B., Columbus.
- Bradford, Ernst, 1892, G. Ph., S. Garfield ave., Columbus, chemist.
- Bradford, Joseph Nelson, 1883, M. E., 54 West Tenth ave., Columbus, associate professor of drawing, State University.
- Brand, Harry Frank, 1896, B. Ph., 1897, LL. B., Worthington.
- Brandt, James Herbert, 1899, B. A., Greencastle.
- Brandt, Ulysses Sherman, 1895, B. A., Canal Winchester, superintendent schools.
- Braun, Joseph G., 1897, G. Ph., Columbus.
- Brelsford, Harley, 1898, B. Ph., Christiansburg.
- Brewer, Charles Reed, LL. B., Bowling Green.
- Brewer, John Whitney, 1896, G. Ph., Columbus.
- Britton, John Carr, 1898, B. Sc. (Agr.), Columbus.
- Brier, Harvey E., 1890, D. V. M., Tippecanoe City, veterinary surgeon.
- Bronson, Herman S., 1897, LL. B. (B. L., Cornell University), Columbus, attorney.
- Brophy, James Francis, 1899, E. M., Frostburg, Md.
- Brown, Frank, 1899, M. A. (A. B., Macalester College), Columbus, teacher in High School.
- Brown, Frederick W., 1888, E. M., Bellefontaine, superintendent Buckeye Portland Cement Co.
- Brown, Newton H., 1893, M. E. in EE., Newark, Del., professor of Electrical Engineering, Delaware College.
- Bruce, Charles A., 1895, B. A., Columbus, assistant professor of Romance Languages, State University.
- Brumley, David Joseph, 1895, C. E., Evansville, Ind., with L. & N. Ry.
- Bruning, Henry Dietrick, 1896, C. E., Pittsburg, Pa., engineer on P., C., C. & St. L. R. R.
- Buckman, Arthur Leslie, 1897, M. E. in EE., Central Union Telephone Co., Toledo.
- Buckman, Ola, 1895, B. Sc. (M. D., Cleveland University of Medicine and Surgery), Norwalk.
- Bunnell, Larone A., 1898, G. Ph., Waynesville.

- Burkett, Charles William, 1895, B. Sc. (Agr.), 1898, M. Sc. (Agr.), Durham, N. H., associate professor of Agriculture, New Hampshire State College.
 Burkett, Dora Van Buren, 1897, B. Ph., Columbus.
 Burns, James Ferguson, 1891, C. E., Hopkinsville, Ky., assistant engineer L. & N. Ry.
 Burr, Harriett G., 1897, B. A., Worthington.
 Butler, James Marion, 1894, LL. B. (A. B., Ohio Wesleyan University), Carmel.
 Butterworth, William H., 1898, B. A., Columbus.
 Bygate, Harry Goldsmith, 1899, M. E., Steubenville.
 Byers, Clara, 1894, B. Ph., Mrs. Coles A. Raymond, Youngstown, O.

C

- Cahen, Alfred, 1894, LL. B., Allegheny, Pa.
 Calkins, George Herbert, 1895, M. E. in EE., with Gen. Electric Co. Testing Department, Schenectady, N. Y.
 Calkins, William Bartlett, 1898, G. Ph., Columbus.
 Callender, Sherman D., Ph. B. (Oberlin College), 1898, LL. B., 326-330, The Nasby, Toledo, attorney.
 Canfield, Charles H., 1897, D. V. M., Akron.
 Canfield, Dorothea Francis, 1899, B. Ph., graduate student, College de France, Paris.
 Canfield, Leander Randall, 1896, B. Ph., Chardon.
 Capron, Marshall Fremont, 1888, M. E., Kenton, architect.
 Carr, Hugh Stanley, 1896, M. E. in EE., Sandusky, chief electrical engineer, Warren Electric Mfg. Co.
 Carr, James Gray, 1897, B. A., Coshocton.
 Carroll, Patrick Henry, 1894, E. M., Houtzdale, Pa.
 Carroll, William Hunt, 1894, LL. B., Wilmington.
 Carson, Samuel King, 1895, M. E. in EE., M. D. (Ohio Medical University), New York City.
 Cathcart, Josephine M., 1888, B. Sc., 1131 Cedar avenue, Cleveland, accountant.
 Catlin, Homer Clark, 1896, C. E., Toledo, Toledo Bridge Co.
 Canaga, George Orlando, 1895, LL. B. (B. A., Scio College).
 Cartwright, Henry Gilroy, 1895, LL. B.
 Cellarius, Frederick Julius, 1888, C. E., Dayton, civil engineer.
 Chamberlain, Helena, W., 1884, B. A., Mrs. Ellis Lovejoy, Union Furnace.
 Chalmers, Agnes Florida, 1895, B. Ph., Bay City, Mich., teacher in High School.
 Chappell, Walter Evans, 1898, M. E. in EE., first-class electrician, U. S. S. Chicago.
 Charters, William Filson, 1887, B. Ph., Sidney, tax inquisitor.
 Cherryholmes, W. K., 1881, B. Sc., M. D., Hamilton, physician.
 Cilley, Raymond, 1896, C. E., Cincinnati.
 Clark, Alexander B., A. B. (Yale University), 1899, LL. B., Canton.
 Clark, Clarence J., 1899, C. E., Wilberforce.
 Clawson, Clarence Alfred, 1899, B. Sc. (Agr.), Okena.
 Clay, Albert Arlington, 1893, LL. B. (B. A., Tri-State Normal College), Hicksville.
 Claypoole, Bessie Smith, 1895, B. Ph., Columbus, student.
 Claypool, Charlotte Lake, 1892, B. Ph., Columbus.
 Clements, Frank Orville, 1899, M. Sc. (M. A., Otterbein University), Westerville.
 Clum, George V., 1893, B. A., Mendota, Ill., president of Mendota College.
 Clum, Harry Ernest, 1899, B. Ph., Westerville.

- Cockins, Edith D., 1894, B. A., Columbus, registrar, State University.
- Coddington, Edwin F., 1896, C. E., 1897, M. Sc., fellow in Astronomy, Lick Observatory, Mount Hamilton, California.
- Cole, George Nathan, 1891, M. E. in EE., Chicago, Ill., 112 Clark street.
- Cole, Marietta C., 1897, B. Ph., Columbus.
- Collins, Curtis, 1895, M. E. in EE., Boston, Mass., engineer Meter Department General Electric Co.
- Coney, William Hawks, 1894, B. Sc., Honolulu, S. I.
- Connell, Laura Jewell, 1896, B. Ph., Columbus, teacher of German.
- Connell, William A., 1886, E. M., Kansas City, Mo., teacher Manual Training School.
- Converse, Edward Joseph, 1886, B. A. (B. D., Yale University), Columbus, assistant pastor, First Congregational Church.
- Converse, Howard Pendleton, 1887, B. Sc., 166 Devonshire street, Boston, Mass., manager Boston office Cooper, Hewitt & Co., steel and iron manufacturers.
- Converse, Walter, 1899, B. A., Plain City.
- Conway, Hugh Lawrence, 1896, C. E., Springfield.
- Cope, Albert N., 1897, M. E. in EE., Columbus, foreman Columbus Street R. R. Corner, Florence, 1897, B. Ph., Columbus.
- Corns, Harry, 1897, B. A., Columbus, teacher in Central High School.
- Corwin, Edwin E., 1880, B. A., Columbus, attorney-at-law.
- Cotes, Albert E., 1897, B. Sc., Columbus, medical student, Ohio Medical University.
- Coursalt, Ida May, 1899, B. Ph., Columbus.
- Coursalt, Jessie H., 1893, B. A., 1898, M. A., Columbus, teacher in Central High School.
- Covell, Vernon Royce, 1895, C. E., Pittsburg, Pa., county engineer's office.
- Craig, Moses, 1889, B. Sc. (M. S., Cornell University, 1890), 1896, M. Sc. (H. & F.), Agricultural and Mechanical College, Corvallis, Oregon.
- Cratty, John Mason, 1897, B. Sc., Cincinnati, chemist.
- Crawford, Ira, Jr., 1893, LL. B. (B. S., Denison University), Dayton.
- Crawford, William Sterling, 1888, B. Ph.
- Cromley, Alva M., 1897, G. Ph., Toledo, pharmacist.
- Crooks, Charles Melvis, 1892, B. A. (B. D., Harvard University, 1896), Colerain, Mass., pastor Congregational church.
- Crowner, Delbert Alonzo, 1896, B. Sc. (Agr.).
- Cummins, Henry Rollins, 1891, G. Ph., Hunter street, Columbus.
- Cunningham, Arthur, 1880, B. A., 107 Lincoln street, Columbus, book-keeper.
- Cunningham, Edward Walter, 1894, C. E., 1718 Indiana avenue, Chicago, Ill., U. S. engineer's office.
- Cunningham, George S., 1886, B. Ph., LL. B., Lancaster, attorney-at-law.
- Cunrington, John Ferguson, 1897, B. Sc. (H. & F.), 1899, M. Sc. (H. & F.), Columbus, assistant in Horticulture, State University.
- Curtis, Leigh Goodrich, 1899, C. E., Hamilton.

D

- Daily, Henry G., 1892, D. V. M., Wooster, veterinary surgeon.
- Dally, John Randolph, 1899, LL. B., Centerburg.
- Damron, Carson W., 1897, M. E., Columbus, Jeffrey Mfg. Co.
- Daniels, David Edwin, 1893, LL. B. (B. Ph., Denison University), 1896, I. U. M., Columbus.
- Davenport, Adrian E., 1897, B. A., Columbus.

- Davidson, David Millen, 1894, B. A.
Davidson, George Edwin, 1899, LL. B., East Liverpool.
Davies, Jennie C., 1897, B. Ph., Columbus.
Davies, John Lodwick, 1894, LL. B., Minneapolis, Minn., attorney-at-law.
Davis, Charles William, 1894, E. M., Colorado Springs, Col., teacher in High School.
Davis, Oscar Allen, 1897, M. E. in EE., Sistersville, W. Va., engineer, Carter Oil Co.
Deahl, Walter Smith, 1896, C. E., Pittsburg, Pa.
Deardurff, Carl Mason, 1895, B. A.
DeLamater, Clayton William, 1884, A. B., LL. B., Omaha, Neb., attorney-at-law.
DeLoffre, Andre, 1896, M. E. in EE., Schenectady, N. Y., Engineering Department General Electric Co.
DeLoffre, Samuel Middleton, 1895, B. A.
Dennis, Jerry, 1892, LL. B., 1893, LL. M., Columbus, attorney-at-law.
Derby, Florence Harlow, 1896, B. Ph., Columbus, graduate student, State University.
Detmers, Fredericka, 1887, B. Sc., 1891, M. Sc., 1215 Neil avenue, Columbus, teacher.
Devol, William Stowe, 1886, B. Agr., Riverside, Cal.
Dice, Jesse Peck, 1898, LL. B., Akron.
Dickinson, Thomas Herbert, 1899, B. Ph., Columbus.
Diemer, Hugo, 1896, M. E. in EE., Norwood, Cincinnati, manager Cost Department Bullock Electric Co.
Dietrich, Charles Henry, 1878, B. Sc., with American Book Co., general manager for Kentucky.
Dietrich, George C., 1898, B. Ph., Groveport, Principal of High School.
Doan, Frank C., 1898, B. Ph., Boston, Mass., graduate, Harvard University.
Doney, Carl Gregg, 1891, B. Sc., 1893, LL. B., Delaware, pastor M. E. church.
Donham Maurice, 1896, M. E., Buffalo, N. Y., Buffalo Forge Co.
Donham, William W., 1882, B. Sc.
Dresbach, Melvin, 1897, B. Sc., Columbus, fellow in Physiology, State University.
Dun, George William, 1884, B. Sc., Columbus, business manager "Columbus Citizen."
Dun, John J., 1883, E. M., Fifteenth avenue, Columbus, consulting engineer.
*Dun, Walter Angus, 1878, B. Sc., M. D., died November 7, 1887.
Dungan, Irvine Laird, 1892, B. Ph., Cincinnati, Lane Theological Seminary.
Dunlap, Thaddeus Cox, 1895, M. E. in EE., consulting engineer, 8 W. Seventh street, Chattanooga, Tenn.
Dunlap, William Renick, 1895, B. Sc., Kingston, farmer.
Dunnick, Edward, 1897, C. E., Columbus, New Columbus Bdg. Co.
Duvel, Joseph W. T., 1897, B. Sc., Wapakoneta.
Dye, Clair Albert, 1891, G. Ph., student, in Germany.

E

- Eagleson, Grace, 1897, B. Ph., Columbus.
Early, Franklin E., 1893, D. V. M.
Easterday, Charles Todd, 1891, G. Ph., Wellston, druggist.
Edwards, Mary Winifreda, 1897, B. A.
Egbert, Knott C., 1890, B. Agr., Yainax, Oregon, Supt. Indian Boarding School.
Eisenlohr, Berthold A., 1898, B. Ph., Cincinnati.

- Ellis, Charles, 1898, D. V. M., 3230 Locust street, St. Louis, Mo., veterinarian.
 Emery, Peyton Randolph, 1893, LL. B., London.
 Emery, Vernon Judson, 1887, B. A. (A. M., University of Nebraska), Cleveland, assistant professor of Latin, Western Reserve University.
 Erf, Oscar, 1899, B. Sc. (Agr.), Monroeville.
 Erskine, John H., 1886, E. M., Lowellville, fire brick manufacturer.
 Estep, Frank Leslie, 1898, M. E. in EE., Alliance, draughtsman, Morgan Engineering Co.
 Evans, Ernest, 1892, B. Sc., Mingo Junction, chemist, Laughlin Junction Steel Co.
 Evans, Peter Platter, 1892, C. E., Boston, Mass., with King Bridge Co.
 Evans, William Lloyd, 1892, B. Sc., 1896, M. Sc., Colorado Springs, Col., teacher of chemistry in High School.
 Eysenbach, Ernest E., 1896, E. M., Columbus, superintendent Columbus Gas Co.

F

- Fairchild, Harmon Scott, 1894, LL. B., Springfield.
 Farber, Charles Harker, 1894, B. A., Columbus, with State Savings Association
 Fassig, Oliver L., 1882, B. Sc., Baltimore, Md., instructor in Climatology, Johns Hopkins University.
 *Fay, Frederick Willis, 1882, B. A., B. Arch., died August, 1892.
 Fay, Mona, 1897, B. Ph. (Mrs. Eugene Gee), Wheeling, W. Va.
 Feicht, Russell Stimson, 1890, M. E. in EE., Engineering Department Westinghouse E. & M. Co., Pittsburg.
 Feiel, Ida Louise, 1898, B. Ph., Columbus.
 Fenner, Jessie Albertus, A. B. (Wittenberg College), 1898, LL. B., Shiloh.
 Fergus, Guy Carlton, 1898, M. E. in EE., partner in Zanesville Electrical Co.
 Fergus, John Franklin, 1892, LL. B., Columbus, attorney-at-law.
 Finley, Harry Marshall, 1894, B. A., McConnellsville, principal of High School.
 Fischer, Julius H. R. Paul, 1891, B. Agr., D. V. M., professor of Veterinary Medicine, Manhattan, Kas.
 Fischer, Robert, 1895, G. Ph., 1896, M. Ph., 1898, B. Sc., Columbus, fellow in Chemistry, State University.
 Fischer, Walter, 1897, B. Sc., Columbus.
 Fish, Fred Alan, 1898, M. E. in EE., Columbus, assistant in Electrical Engineering, State University.
 Fisher, Clara, 1886, B. A., Mrs. J. Porter Milligan, Columbus.
 Fisher, Georgietta, 1895, B. A., teacher in High School, Ottumwa, Iowa.
 Fitzgibbon, James Robert, 1894, LL. B., Newark.
 Fitterer, John Conrad, 1898, B. Sc., Butler.
 Flickinger, George A., 1898, B. Sc. (Agr.), York.
 Floto, Julius, 1889, E. M.
 Flynn, Benjamin H., 1898, C. E., Columbus, with State Board of Health.
 Flynn, Harry Franklin, 1892, C. E., Washington, D. C., U. S. Geodetic and Coast Survey.
 Flynn, Maud, 1896, B. Sc., Columbus, student, Columbus Normal School.
 Flynn, Oscar Rodgers, 1896, B. Sc., teacher in High School, Columbus.
 Foley, William J., 1894, D. V. M., Lexington, Ky.
 Ford, Ruth L., 1898, B. A., Ashtabula, teacher in High School.
 Ford, Stanley Hamer, 1898, B. Ph., 1st Lieut. in U. S. Army.
 *Forge, Ralph Morris, 1896, B. Ph., died March, 1899.
 Foster, Dudley Hampton, 1895, B. Ph., LL. B., attorney-at-law, Corning.

- Foster, Frank McMillan, 1894, M. E. in EE., with John N. Poage, Cincinnati, manufacturer water columns and valves.
- Foster, Israel Moore, 1898, LL. B., Athens.
- Foulk, Charles William, 1894, B. A., student, in Germany.
- Fowler, Harry R., 1894, M. E. in EE., Toledo, electrical contractor.
- Fox, Charles P., 1890, B. Agr., 1895, M. Agr., Columbus.
- Fox, Frederick Hugh, 1896, B. Ph., McConnellsville.
- Fox, John Herbert, 1897, M. E., Cleveland, Brown Hoisting Machine Co.
- Francis, Edward, 1894, B. Sc., M. D. (Ohio Medical College), Washington, D. C.
- Francis, Mark, 1887, D. V. M., College Station, Brazos Co., Tex., professor of Veterinary Medicine, Agricultural and Mechanical College.
- Frankenberg, John Theodore, 1899, M. E., in EE., Columbus.
- Fravel, George B., 1888, M. E., Indianapolis, Ind., assistant Master Mechanic, Pan Handle shops.
- Frayar, Lee Ambrose, 1896, M. E., Columbus, Columbus Machine Co.
- Freeman, Stanton Sholes, 1898, E. M., Columbus.
- French, Thomas Ewing, 1895, M. E., Columbus, assistant professor of drawing, State University.
- Fritchle, Oliver Parker, 1896, B. Sc., Mt. Hope.
- Fulmer, Edward L., 1897, B. Sc., 1898, M. Sc., Mitchell, S. D., University of South Dakota.
- Fullerton, Charles Haywood, 1898, B. Ph., Wheelersburg.

G

- Gains, Charles E., 1889, B. Ph., London, physician.
- Galbraith, John Howard, 1883, B. Ph., Oak street, Columbus, journalist.
- Gale, Cora C., 1893, B. Ph., Columbus.
- Gale, Franklin Henry, 1893, LL. M. (LL. B., University of Michigan), Columbus.
- Gallen, William Francis, 1897, M. E., Columbus, Columbus Machine Co.
- Game, Reed Haskell, 1896, B. Ph., 1899, LL. B., Columbus.
- Gamper, Herman, 1899, M. E., Columbus.
- Garber, Alberta D., 1889, B. Ph., A. M., Boston, Mass.
- Garber, John Murray, 1897, C. E., Columbus, New Columbus Bdg. Co.
- Garber, Levi L., 1898, B. A., Belleville.
- Garst, William Augustus, A. B. (Otterbein University and Harvard University), 1898, LL. B., Westerville.
- Gee, Eugene C., 1897, M. E. in EE., Wheeling, W. Va., with Telephone Co.
- Gehrckens, Edward Frederick, 1894, M. E. in EE., Schenectady, N. Y., with General Electric Co.
- Geissinger, James Allen, 1895, B. A., Cincinnati.
- Genheimer, Eli Thomas, 1896, B. Ph., Portsmouth, teacher in High School.
- Genheimer, William F., 1897, LL. B., Portsmouth, attorney.
- Gibbs, George C., 1893, B. A., Columbus, with Green, Joyce & Co.
- Given, James Byron, 1896, M. E. in EE., 224, 22d street, Chicago, Ill., President Given Supply Co.
- Givens, Newton Edgar, A. B., 1896, LL. B., Waverly.
- Glover, Sioux, 1882, B. Sc., Mrs. Horton, Errid, Pa.
- Goddard, Loring Hapgood, 1892, C. E., Sullivan, Ind., farmer.
- Good, Paul Revere, 1899, B. A., Westerville.
- Goodell, Ralph Spencer, 1892, C. E., Mt. Vernon, Mt. Vernon Bridge Co.
- Goodman, Joseph Clarence, 1896, LL. M., Columbus.
- Goodman, Sylvester Jacob, 1896, G. Ph., Columbus, student, Ohio Medical University.

- Gordon, Adelaide Cummins, 1896, B. Ph., Columbus.
- Graham, Eméry Eugene, 1898, M. E. in EE., Alliance, Morgan Engineering Co.
- Grandle, Frank Albert, 1891, G. Ph.
- Grate, Charles Artemis, 1898, M. E., Akron, Adamson Machine Co.
- Graves, William L., 1893, B. A., 1897, M. A., assistant professor in Rhetoric, State University.
- Gray, Genevieve, 1898, B. Ph., Columbus.
- Gray, James Collam, 1892, LL. B., 1893, LL. M., Pittsburg, Pa., attorney P. R. Ry.
- Green, Charles C., 1885, B. Sc., M. D., Beaver City, Neb., physician.
- Green, Jerome Joseph, 1893, M. E. in EE., Notre Dame, Ind., Notre Dame University, professor of Physics and Elec. Engineering.
- Green, Joseph Fairst, 1899, M. E. in EE., Dayton.
- Green, Robert Lee, 1892, G. Ph., New York City.
- Gregg, Frank B., 1889, B. Ph., M. D.
- Gregory, Hiram D., 1880, E. M., attorney-at-law, Grayson, Ky.
- Griffin, Mark H., 1897, M. E. in EE., Xenia, electrical engineer, Soldiers' and Sailors' Orphans Home.
- Griffin, Theodore L., 1889, B. Sc., M. Sc., Columbus, chemist.
- Griffith, David Mathias, 1896, LL. B., Kecksburg, Pa.
- Griffith, Wellington John, 1892, LL. B., Tiffin.
- Griffiths, Benjamin Lincoln, 1898, LL. B., Vaughnsville.
- Grimsley, George Perry, 1890, B. A., 1891, M. A. (Ph. D., Johns Hopkins University, 1894), Topeka, Kan., professor Natural History, Washburn College.
- Griswold, Lawrence William, 1892, B. A., New York City, London Assurance Co.
- Groff, Orsylla Ann, 1894, G. Ph., North High street, Columbus, pharmacist.
- Groff, Warren Noble, 1896, B. A., 1899, LL. B., Tiffin.
- Groves, John Wesley, 1898, C. E., Batavia.
- Gruen, Francis William, 1899, B. Ph., 1899, LL. B., Cincinnati.
- Guerin, Martha, 1896, B. Ph., Columbus.
- Gugle, George Linville, 1896, LL. B., Columbus, attorney.
- Gugle, Marie, 1897, B. A., Alexandria, Ind., teacher.
- Guittard, Virgil, 1894, B. Sc., New Bedford.
- Guitteau, William B., 1897, B. Ph., Toledo, teacher in High School.
- Guss, Sherman Hamlin, 1892, B. A., Clarksburg, W. Va., principal of the colored schools.

H

- Haas, Frank, 1895, C. E., 1896, E. M., Columbus.
- Hagler, Howard, 1889, B. Sc., Washington, C. H., farmer.
- Haigler, Charles Edmund, 1898, B. Sc., Jeffersonville.
- Hale, Frederick James, 1898, M. E., Columbus, fellow and laboratory assistant in Mechanical Engineering, State University.
- Hall, Harry R., 1889, E. M., Dunbar, Pa., assistant general manager Dunbar Furnace Co.
- Halterman, Oscar Elmore, 1895, LL. B., B. S. (National Normal University).
- Hamilton, Charles R., 1893, B. A., Zanesville, Dun's Commercial Agency.
- Hamilton, Frank Alexander, 1895, D. V. M., Dubois, Pa., veterinary surgeon.
- Hammond, Bessie B., 1897, B. Ph., Columbus.
- Hammond, Rose Lyttle, 1896, B. Ph., Columbus, teacher.
- Hancock, David R., 1889, G. Ph., M. D.
- Haney, Thomas Carlyle, 1894, G. Ph., Columbus, pharmacist.
- Hannum, William Hamilton, 1897, B. A., Columbus.

- Harbage, Arnett, 1893, D. V. M., West Jefferson, farmer.
- Harlor, John David, 1895, B. A., Columbus, teacher in Central High School.
- Harris, Charles Pearl, 1899, B. Ph., West Liberty.
- Harris, Frank Laverne, 1894, LL. B. (Ph. B., Tri-State Normal University),
Payne.
- Harris, Walter Conger, 1893, B. Sc., 68 W. Thirty-fifth street, New York, with
Art Department of Herald.
- Harrison, Warner, 1892, LL. B., East Town street, Columbus, attorney and
solicitor C., A. & C. Railway.
- Harrison, William Henry, 1885, C. E., Anaconda, Montana.
- Harrold, Ernst Ellwood, 1895, G. Ph., dispenser chemical store-room, State
University.
- Harrop, Herbert Bailey, 1898, B. Sc., Columbus.
- Hartsough, William H., Jr., 1898, B. Ph., Columbus.
- Hartwell, Arthur, 1888, M. E., Chicago, Ill., manager Chicago office Westing-
house E. & M. Co.
- Hartwick, Louis M., 1897, M. E., Springfield, chief draughtsman for Foos Gas
Engine Co.
- Harvey, Arlington Corylle, 1896, B. Ph., 1897, M. A., 1899, LL. B., Columbus.
- Harvey, Emory Wayland, 1896, B. Ph., Cleveland, teacher.
- Harvey, Florence Danford, 1898, B. Ph., Mt. Perry.
- Harvey, Sherman Lee, 1896, G. Ph., Harrisburg.
- Hassler, Robert Hanich, 1892, M. E. in EE., electrical engineer, Indiana Bicycle
Co., Indianapolis, Ind.
- Hastings, Edwin George, 1898, B. Sc., Madison, Wis., student, University of
Wisconsin.
- Hayes, Seth, 1892, B. Sc., Fremont, principal of High School.
- Hayward, George E., 1893, C. E., New Philadelphia, engineer, C., L. E. &
W. Ry.
- Hazelton, Bird, 1898, B. Ph., New Straitsville.
- Hazlett, Robert, Jr., 1887, C. E., Wheeling, W. Va., consulting engineer.
- Heacock, William Preston, 1898, LL. B., Cardington.
- Heath, Arthur T., 1887, G. Ph., Harbor, analytical chemist, consulting engineer
and contractor.
- Hebble, Charles Roy, 1896, M. E. in EE., Cincinnati, electrical engineer.
- Hedges, Harry, 1888, B. A.
- Heller, Albert Henry, 1890, C. E., Youngstown, Youngstown Bridge Co.
- Henderson, Adelbert Andrew, 1898, C. E., Columbus, city engineer corps.
- Henretta, Charles Michael, 1896, E. M., Buffalo, engineer J. W. Ellsworth
Coal Co.
- Herbert, Charles T., 1897, LL. B., Columbus, attorney.
- Herms, Edith S., 1898, B. Ph., Portsmouth.
- Herrick, Louise, 1893, B. A. (Mrs. Harry Abbott), Columbus.
- Hertner, John H., 1899, M. E. in EE., Dayton.
- Hess, Florence Louise, 1895, B. Ph., Columbus.
- Hewitt, Strafford Reaves, 1898, M. E. in EE., Columbus Belting and Packing Co.
- Hiatt, William Arthur, 1895, B. Ph., New York City, teacher in Stevens School,
Hoboken, N. J.
- Higbee, Charles E., 1883, B. Sc.
- High, Odessa, 1896, B. A., West Jefferson.
- Hill, Frank E., 1886, B. Sc., M. D., Muncie, Ind.
- Hill, I. T. Reynolds, 1896, B. Sc. (H. & F.), Berlin Heights.
- Hine, James S., 1893, B. Sc., Columbus, assistant professor of Entomology, State
University.

- Hine, Lucius A., 1888, E. M., 140 50th street, Chicago, Ill., manufacturer of light casting, etc.
- Hipple, John Merton, 1898, M. E. in EE., Turtle Creek, Pa., inspector Westinghouse E. & M. Co.
- Hirsch, Gustav, 1897, M. E. in EE., Washington, 2d Lieut. U. S. N. Signal corps.
- Hoel, Sarah Elizabeth, 1893, B. Sc. (Mrs. W. M. Mills), North Tonawanda, N. Y.
- Hoffman, Arthur Sullivant, 1897, B. A., Coshocton, teacher in High School.
- Homan, Frank, 1895, C. E., New Straitsville, chief engineer, C. H. H. C. & I. Co.
- Hood, Sherman, 1894, B. Sc., Meander, gardner.
- Hoover, Frederic Roland, 1899, B. Ph., Columbus.
- Hopkins, Charles Delnow, 1893, LL. B. (B. A., Ohio Wesleyan University), Athens.
- Horton, Henry Pomeroy, 1889, B. Ph.
- Houseman, Ruth U., 1897, B. Ph., Painesville, teacher in High School.
- Houston, Anna Christine, 1892, B. Ph., 1895, M. A., Marysville.
- Hovey, Clark Samuel, B. A. (Buchtel College), 1898, LL. B., Akron.
- Howald, Ferdinand, 1878, B. Sc., Rush Run, W. Va., manager of mining operations.
- Howard, A. B., 1883, B. Ph., Jackson, Miss., clergyman.
- Howard, Curtis C., 1878, B. Sc., M. Sc., 115 Jefferson avenue, Columbus, professor of Chemistry in Starling Medical College.
- Howard, Fanny Fern, 1896, B. A., Columbus.
- Howard, Edward Davenport, 1894, LL. B., 1896, LL. M., Columbus, attorney.
- Howard, John Wilmot, 1895, B. Sc., Columbus, assistant secretary, Board of Trade.
- Howells, Thomas J., 1897, E. M., Martins Ferry.
- Hubbard, Ralph Newton, 1891, B. Sc., Columbus, Columbus Machine Co.
- Hughes, Raymond Mollyneaux, A. B. (Miami University), 1897, M. Sc., Miami University, professor of Chemistry.
- Huddleson, Don Carlos, 1897, G. Ph., Columbus, assistant in Gymnasium, State University.
- Huffman, Lillian Stuart, 1899, B. Ph., Columbus.
- Huggins, Burch Delaplaine, 1899, B. Ph., Hillsboro.
- Hull, Mary Louise, 1894, B. A. (Mrs. C. H. Farber), Columbus.
- Humphrey, J. Scott, 1879, B. Sc., Findlay, civil engineer.
- Humphreys, Leona, 1895, B. A., Plain City, teacher in High School.
- Hunt, William Franklin, 1887, M. E., attorney-at-law, New York Life Building, St. Paul, Minn.
- Huntington, Arthur, 1899, M. E., Columbus.
- Huston, Charles H., 1897, LL. B. (B. S., Tri-State College, Ind.), Mansfield.
- Hyde, Wilby Grimes, 1887, B. A. (LL. B., Cincinnati), Chillicothe, attorney-at-law.
- Hyle, Charles A., 1896, M. E. in EE., San Francisco, Weather Bureau.

I

- Imes, Marion, 1899, B. Sc. (Agr.), Bashan.
- Ingram, Imogene, 1897, B. Ph., Columbus.
- Innis, Lyman H., 1893, B. A., 1895, LL. B., Columbus, attorney.
- Ireland, Guy Llewellyn, 1895, M. E., Cincinnati.
- Irvin, Chadwick H., 1897, M. E., Lima.

J

- Jackson, Frank Pierce, 1892, LL. B., 1893, LL. M., Columbus, attorney.
- James, Florence May, 1896, B. A. (Mrs. Oscar R. Flynn), Columbus.
- Jeffrey, Maud Dorothy, 1895, B. Ph., assistant in library, State University.
- Jenkins, William B., 1893, C. E., Wilmington, Columbus and Athens Ry.
- Jenkins, Willis H., 1894, C. E., New York City, engineer.
- Jennings, Irvin G., 1899, LL. B., Zanesville.
- Jennings, Levi E., 1897, M. E. in EE., Eaton.
- Johnson, Charles W., 1896, M. E. in EE., Norwood, Cincinnati, chief draughtsman Bullock Electric Mfg. Co.
- Johnson, George Edward, 1892, C. E., N. & W. Ry., Kenova, W. Va.
- Johnson, Herbert Lincoln R., 1892, M. E. in EE., Cincinnati.
- Johnston, Frederick Symmes, 1899, B. Sc. (Agr.), Durham, N. H., assistant in Agriculture, New Hampshire State College.
- *Jones, A. A., 1886, C. E., died May, 1894.
- Jones, Arthur James, 1898, M. E. in EE., Homestead, Pa., clerk, Carnegie Steel Works.
- Jones, Aaron Wesley, 1891, B. Sc., Columbus, Gardner Insurance Agency.
- Jones, Alexander Houston, 1895, M. E. in EE., St. Louis, Mo., with B. J. Percival, engineer.
- Jones, Benner, 1897, LL. B., Jackson.
- Jones, Daniel D., 1893, G. Ph., Gallipolis, pharmacist, Epileptic Hospital.
- Jones, Jesse Lee, 1890, B. A., Philadelphia, Pa., chemist, William Cramp & Sons, ship-builders.
- Jones, Paul, 1880, B. A., Columbus, attorney-at-law.
- Jones, Pearl N., 1892, M. E. in EE., Pittsburg, Pa., engineer and salesman, Westinghouse E. & M. Co.
- Jones, Smiley, 1894, E. M., Downieville, Cal., electrician, Gold Bluff mine.
- Jones, William Francis, 1896, D. V. M., Cincinnati, Miami Medical College.
- Judd, Horace, 1897, M. E., 1899, M. Sc., Columbus.
- Judkins, Clyde H., 1897, LL. B. (A. B., Scio College), Flushing.
- Junk, Harry Prior, 1895, LL. B., Columbus, attorney-at-law.

K

- Keagle, Anna Brown, 1895, B. Ph., Columbus, teacher North High School.
- Keating, David Thatcher, 1899, B. Ph., Columbus.
- Keffer, Frederick, 1892, M. E., Anaconda, British Columbia, Supt. Boundary Creek Mining Co.
- Keifer, William White, 1886, B. A. (LL. B., Cincinnati), Springfield, attorney-at-law.
- Keiser, Romeo Orpheus, 1892, B. Sc., 1896, G. Ph., Columbus, assistant in Chemistry, Ohio Medical University.
- Kellerman, Ivy, 1898, B. A., 1899, M. A. (Cornell University), Ithica, N. Y., student, Cornell University.
- Kellicott, William E., 1898, B. Ph., Marysville, teacher in High School.
- Kellison, Edward Lafayette, 1897, B. Ph., Columbus, student in College of Law, State University.
- Kemmler, Edward A., 1888, C. E., 895 S. High street, Columbus, assistant city engineer.
- Kerr, Samuel Thompson, 1894, M. E. in EE., Martin's Ferry, superintendent Municipal Electric Light Plant.

- Kersey, William Rufus, 1899, M. A. (B. A., Earlham College), Columbus.
 Kershaw, Francis Stewart, 1891, B. Ph., Boston, Mass.
 Kershaw, Samuel Charles, 1892, B. Ph., Columbus, book-keeper, Columbus Bolt Works.
 Kester, Fred. Edward, 1895, M. E. in EE., Columbus, assistant in Physics.
 Kiesewetter, Louis Frank, 1891, C. E. (A. B., Harvard, '92, and A. M., '93), Columbus, assistant cashier Ohio National Bank.
 Kiler, Abdel William, 1896, G. Ph., druggist, Columbus.
 King, Robert James, 1899, B. A., Zanesville.
 Kirby, Harriet R., 1898, B. A., Columbus, teacher in North High School.
 Kirker, Harry L., 1889, B. Sc., Centreville, Idaho, electrician, Basic Co.
 Kiser, Katherine Daniel, 1895, B. A., Chicago, principal High School.
 Kline, Charles H., 1897, M. E. in EE., Dayton.
 Knauss, William Henry, 1895, B. Sc., student, Starling Medical College.
 Knecht, Arthur Edward, 1898, M. E., Cincinnati.
 Knight, Ruby Ray, 1895, B. Sc., Middleport.
 Knopf, Eva S., 1895, B. Ph., Columbus, teacher in North High School.
 Knopf, George W., 1883, B. Sc., Pittsburg, Pa., bridge builder.
 Kohr, Donald Alexis, 1898, B. Ph., Westerville.
 Krauss, Bertha Katherine, 1892, B. Ph., Ottawa.
 Kreiger, Charles Henry, 1887, G. Ph., Columbus, superintendent the Kauffman-Lattimer Co.
 Krumm, Charles S. M., 1896, B. Ph., 1898, LL. B., Columbus, attorney.
 Krumm, Herbert Zettler, 1898, B. Ph., Columbus.
 Krumm, Lillian Louise, 1895, B. Ph. (Mrs. Harry Rush Wilson), Columbus.
 Krumm, Louis Ralph, 1898, M. E. in EE., Engineering Department Central Union Telephone Co., Chicago, Ill.
 Krupp, William Emil, 1899, LL. B., Uhrichsville.
 Kuhn, Vallie Howard, 1896, M. E. in EE., Etna.
 Kuhn, Harry Waldo, 1897, B. Sc., graduate student, Cornell University.

L

- Lamme, Benjamin G., 1888, M. E., Pittsburg, Pa., engineer, Westinghouse E. & M. Co.
 Lamme, Bertha A., 1893, M. E. in EE., Pittsburg, Pa., Westinghouse E. & M. Co.
 Landacre, Francis Leroy, 1895, B. A., assistant in Zoology and Entomology, State University.
 Landacre, Walter Alexander, 1891, G. Ph., Columbus, with Braun & Sons.
 Landis, Walter Victor Titus, 1895, B. Ph., Dayton.
 Lane, Quinton R., 1898, B. Ph., Canal Winchester.
 Large, Joseph H., 1890, C. E., Pittsburgh, Pa., assistant inspector of bridges, Pennsylvania Southwestern system.
 Laughlin, Hugh Clarence, 1890, B. A. (A. M., 1895, University of Nebraska), 1712 Bathgate avenue, New York, teacher in High School for Boys and Girls.
 Lavery, William F., 1890, D. V. M., veterinary surgeon, State University.
 Lawrence, Arthur K., 1897, G. Ph., Columbus.
 Layton, Roy Everett, 1895, B. A., 1897, LL. B., Wapakoneta, attorney.
 Lee, Edwin S., 1893, G. Ph., Columbus, druggist.
 Lee, Robert M., 1897, M. E., Westinghouse Machine Co.
 Leffler, Edward Victor, 1896, G. Ph., Leipsic.
 Lehman, John Wesley, 1899, B. Ph., Canal Winchester.
 Lemert, Helen Ora, 1894, B. A., Columbus, teacher High School.

- Lentz, Alice B., 1897, B. Ph., Lloydsville.
- Lentz, Theresa, 1893, B. Ph., Bellaire, teacher in High School.
- Leonard, James Lincoln, 1893, LL. B. (B. S., Ohio Normal University), Welcome.
- Levering, Orpheus D., 1893, M. E., Winchester, Mass., The McKay Metallic Fastening Association.
- Lewis, Charles Montgomery, 1881, B. A., Columbus, with Columbus Evening Dispatch.
- Lewis, Thomas K., 1894, B. Sc., Columbus, assistant in drawing, State University.
- Lincoln, Paul Martyn, 1892, M. E. in EE., Niagara, N. Y., assistant superintendent Niagara Falls Power Co.
- Lindo, William C., 1896, C. E., Cleveland, O., "Nickle Plate" R. R., engineer.
- Linebaugh, Jesse J., 1899, M. E. in EE., Pleasant Corners.
- Linson, Irvin, 1882, B. A.
- Lisle, Dallas Gypsi, 1899, B. Ph., Columbus.
- Lisle, Leslie Mae, 1899, B. Ph., Columbus.
- Lisle, Leslie, Mac, 1899, B. Ph., Columbus.
- Logan, Lavallette Lasea, 1896, E. M., Scranton, Pa., professor National Correspondence School.
- Logsdon, Carey Ligonri, 1899, B. Ph., Columbus.
- Logsdon, Clement Jay, 1898, G. Ph., Columbus.
- Loomis, John Cooper, 1898, LL. B., Tiffin.
- Lott, Charles Milford, 1895, M. E. in EE., Paulding, superintendent Electrical St. & Power Co.
- Loveberry, Clarence, 1896, D. V. M., Minneapolis, Minn., government meat inspector.
- Lovejoy, Ellis, 1885, E. M., Union Furnace, chemist and superintendent Columbus Brick and Terra Cotta Co.
- Lovejoy, Jesse R., 1884, B. Sc., Schenectady, N. Y., with General Electric Light Co.
- Luce, George Ernest, 1897, LL. B. (A. B., Ohio Wesleyan University), Columbus.
- Luse, Clara E., 1897, B. Ph., Mrs. Herbert T. Scott, Columbus.
- Lusk, William Vinton, 1893, D. V. M., Ft. Wingate, New Mexico; veterinary surgeon, Ind. cavalry.
- Lydenberg, Walter B., 1898, B. A., Dayton.
- Lynas, Caroline, 1898, B. A., Columbus.
- Lynas, Charles E., 1898, B. A., Columbus.

M

- Maag, Benjamin Franklin, 1899, M. Sc. (B. Ph., Wooster University), Mt. Eaton.
- MacGuire, Charles White, 1895, G. Ph., Toledo, student Toledo Medical College.
- Mackey, Ure LaVerne, 1893, M. E. in EE. (B. A., Wooster University).
- Magly, Robert A., 1897, G. Ph., Columbus.
- Magruder, Leonard Anthony, 1895, B. Ph., 1896, LL. M.
- Maier, John Valentine, 1895, LL. B. (B. S., Northern Indiana Normal University).
- Malone, William Ruskin, 1885, B. A., Toledo, with New York Life Insurance Co.
- Manecke, Gilbert, 1897, LL. B., Fostoria.
- Manley, Rush Emmett, 1894, M. E. in EE., manager of Exchange Central Union Telephone Co., Mt. Vernon.
- Mann, Wilber Edwin, 1899, B. Ph., Morrisville.
- Marple, Charles Allen, 1885, B. Sc., Louisville, Ky., teacher of Science, Male High School.
- Marquard, Frank Fred, B. L., 1896, C. E., Dayton.

- Marshall, George Sidney, 1894, B. Ph., 1897, LL. B., Columbus, attorney, Second Assistant Director of Law.
- Martell, Leonard Roland, 1898, B. A., Columbus.
- Martin, Edwin Dunlevy, 1891, B. Ph., Lee Centre, Ill., teacher.
- Martin, George, 1897, M. E. in EE., Massillon, Central Union Telephone Co.
- Martin, Percy, 1892, M. E. in EE., The Union Electric Co., 4 Frederick Wilhelm street, Berlin, Germany, electrical engineer.
- Marvin, Charles Frederick, 1883, M. E., Washington, D. C., U. S. Weather Bureau.
- Mason, George F., 1890, G. Ph., Minneapolis, Minn., pharmacist.
- Masters, George Albert, 1886, C. E., Toledo.
- Mathers, John Harrison, 1895, B. Ph., Conover.
- Mathias, Frederick W., 1893, B. Sc., Toledo, teacher High School.
- Matson, George H., 1882, G. Ph., 93 Lexington ave., Columbus, professor of Pharmacy, Ohio Medical University.
- Matson, William Edgar, 1896, M. E. in EE., Lynn, Mass., with General Electric Co.
- Mauer, George Clifford, 1892, D. V. M., Oak Harbor, veterinarian.
- Mays, James Wesley, 1897, B. Ph., Columbus, student in College of Law, State University.
- McAllen, William Johnson, 1894, C. E., Mt. Vernon, O., engineer.
- McCarter, Edward Bancroft, 1892, B. A., 1894, LL. B., Columbus attorney.
- McCarter, Flora, 1897, B. A., Columbus.
- McCarter, Robert Dale, Jr., 1895, M. E. in EE., Berlin, Germany, representing General Electric Co.
- McClelland, Chalmer Kirk, 1898, B. Sc. (Agr.), Andover.
- McCormick, J. H., 1880, M. E., Dayton, National Cash Register Co.
- McCormick, William Francis, 1896, M. E., Columbus.
- McCulloch, George Elmer, 1891, B. Sc.
- McDowell, John Andrew, 1882, B. Sc., 949 Neil ave., Columbus, cement engineer.
- McFadden, John Franklin, 1878, B. A., Columbus, attorney-at-law.
- McGregor, James Howard, 1894, B. Sc., New York, assistant in Zoology, Columbia University.
- McGrew, John Alexander, 1895, C. E., Cleveland, engineer, with Pennsylvania Railroad Co.
- McGuffey, Francis Hoyt, 1894, M. E. in EE., McGuffey, wholesale produce.
- McIntire, Alfred Heber, 1898, M. E. in EE., Columbus, fellow in Industrial Arts, State University.
- McLaughlin, Annis, 1897, B. Ph., Columbus.
- McLaughlin, James Audley, 1895, LL. B. (B. A., Monmouth College).
- *McMakin, Amasa Brown, 1879, B. Sc., died May 22, 1891.
- McNary, George Bull, Jr., 1896, M. E. in EE., Toledo, with Bissel & Co.
- McPherson, William, 1887, B. Sc., 1891, M. Sc., 1895, D. Sc., Columbus, State University, professor of Chemistry.
- Mead, Clinton V., 1884, B. Ph., Denver, Col., attorney-at-law.
- Mead, Rollo Nooman, 1895, D. V. M., Grand Rapids.
- Mebs, George H., 1897, G. Ph., Columbus.
- Meek, Charles Wesley, 1894, LL. B., Toledo.
- Meek, Edward Duncan, 1896, B. A., 1899, M. A., Glencoe.
- Meek, William W., 1889, B. Ph., 121 Fifteenth ave., Columbus, J. W. Meek & Co.
- Mendenhall, Maurice H., 1893, D. V. M., West Elkton.
- Menough, Arthur George, 1894, E. M., Wellsville.
- Mercer, Frank Emmet, 1896, M. E. in EE., Wauseon.

- Merrill, Alice Louise, 1893, B. A., 6565 Yale ave., Chicago, Ill., Station O. teacher.
- Merrill, Charles Wesley, A. B. (Denison University), 1898, LL. B., 326-330 The Nasby, Toledo, attorney.
- Mershon, Ralph D., 1890, M. E., New York office Westinghouse E. & M. Co.
- Mesloh, Charles W., 1889, B. A., 1895, M. A., assistant professor of German, State University.
- *Metters, Allen, 1896, B. A., died January 22, 1898.
- Metzger, Edward H., 1897, G. Ph., Circleville.
- Mickey, Blanche D., 1898, B. Ph., Columbus.
- Middleswart, Clarence Coulter, A. B. (Marietta College), 1898, LL. B., Constitution.
- Middleton, Ambrose, 1895, G. Ph., Lancaster.
- Miller, Carl James, 1898, B. Sc. (Agr.), Franklin.
- Miller, Charles C., 1883, B. A., Lima, superintendent schools.
- Miller, Daniel Elmer, 1890, G. Ph., Dayton, druggist.
- Miller, Frank Case, 1893, C. E., Columbus, assistant engineer C., S. & H., Short Line Division.
- Miller, Harry Franklin, 1889, M. E., McKeesport, Pa., constructing engineer, National Tube Works.
- Miller, Henry P., 1897, D. V. M., Sunbury.
- Miller, Walter McNab, B. Sc., 1885, Reno, Nev., professor of Anatomy and Physiology, State University.
- *Milligan, James Porter, 1886, B. A., died, February, 1899.
- Mills, William C., 1898, B. Sc. (H. & F.), Columbus, curator Archæological collection, State University.
- Milne, Alexander, B. D. (Yale University), 1898, M. A., Duluth, Minn., pastor Pilgrim Congregational Church.
- Mix, Edward W., 1888, B. Sc., Paris, France, superintendent "Le Societi des Establishments."
- Mix, Melvin Noble, 1895, B. Ph., New York, The World, journalist.
- Mock, George Herbert, 1891, B. Sc., Ohio State Savings Bank, Columbus.
- Montgomery, Howard, 1896, B. Ph.
- Moodie, Alice Haynes, 1890, B. A., Mrs. Arthur Hartwell, Chicago, Ill.
- Mooney, Daniel Francis, 1894, LL. B., St. Mary's.
- Moore, Henry Curtis, 1897, B. Sc., Washington C. H.
- Moore, Virgil Owen, 1895, B. Sc., Columbus, student Starling Medical College.
- Morhart, Katherine Elizabeth, 1893, B. Ph., Pomeroy.
- Morrey, Annie Eliza, 1896, B. A., Chester Hill.
- Morrey, Charles B., 1890, B. A., 1896, M. D., Columbus, assistant professor Physiology, State University.
- Morrey, William T., 1888, B. A., New York City, teacher.
- Morris, Clyde T., 1898, C. E., Columbus, New Columbus Bdg. Co.
- Morrison, M. Frank, 1879, B. A., Mrs. S. H. Short, E. 9th ave., Cleveland.
- Morrison, Robt. O., 1893, C. E., Cincinnati, engineer on Little Miami R. R.
- Morton, George L., 1884, M. E. (LL. B., National Law School), chief examiner, patent office, Washington, D. C.
- Moses, Martha Allston, 1891, B. Ph., 1111 Hinman ave., Evanston, Ill., book-keeper.
- Moss, Blanche, 1898, B. A., Columbus.
- Moss, William, 1898, G. Ph., Buffalo.
- Moyer, Henry E., 1893, B. Sc., Youngstown, chemist, Youngstown Steel Co.
- Mull, Bert LaForrest, 1898, LL. B., Columbus.
- Mullay, Annie, 1887, B. Ph., Chicago, teacher.

- Mundhenk, Fred., 1896, B. Ph., Columbus, life insurance agent.
 Mundhenk, Herbert C., 1899, B. Ph., Brookville.
 Mundhenk, Ruth, 1899, B. Ph., Dayton.
 Munn, Mortimer Adam, 1894, C. E., Springfield, engineer.
 Munson, Theodore, 1898, B. Sc., Zanesville.
 Murray, Claude R., 1895, B. A., Middleport, principal of High School.
 Murray, Frank Erskine, 1892, D. V. M., Greenfield, veterinary surgeon.
 Myers, Joseph Simmons, 1887, B. A., Pittsburg, Pa., editor Pittsburg Post.
 Myers, Ord, 1895, M. E. in EE., inspector Metropolitan St. Ry. Co., New York.
 Myers, Roy V., 1893, C. E., Dayton, Tenn., mining engineer.
 Myers, Uriah H., 1887, E. M., Allegheny, Pa., chemist, Marshall Kennedy Milling Company.

N

- Nagel, William G., 1895, M. E. in EE., Toledo, W. G. Nagel & Co., electrical supplies.
 Needles, Mana R., 1890, B. Ph. (Mrs. Kilpatrick), Owosso, Mich.
 Nettleton, Arthur Warren, 1898, B. Sc. (Agr.), Medina.
 Newton, Henry S., 1889, B. Sc., Syracuse, N. Y., general manager Syracuse, Lakeside and Baldwinsville R'y.
 Newton, Samuel Donald, 1895, C. E., engineer on Southern R. R.
 Nichol, Gertrude Bell, 1899, B. Ph., Columbus.
 Niewvahrer, John Henry, 1891, B. A., Jackson, assistant cashier, First National Bank.
 Noble, W. F., 1879, B. A., Tiffin, attorney-at-law.
 Nurian, Kerson, 1899, M. E., East Pittsburg, Pa.
 Nutt, Arthur Chase, 1897, B. Ph., scholarship in Philosophy, Cornell University.

O

- Obetz, Francis Henry, 1896, G. Ph., Columbus.
 O'brine, David, 1881, B. Sc., M. Sc., E. M., D. Sc., M. D., Urbana, physician.
 Odebrecht, August, 1895, G. Ph., Columbus, with H. Braun & Sons.
 O'Kane, Sarah Eliza, 1891, B. Ph. (Mrs. F. M. Raymund), 215 W. Tenth ave., Columbus.
 O'Kane, Walter Collins, 1897, B. A., Columbus, journalist.
 Orton, Clara Gregory, 1897, B. Ph., Columbus.
 Orton, Edward, Jr., 1894, E. M., Columbus, director of the department of Clay-working and Ceramics, State University.
 Orton, Walter Edwin, 1899, LL. B., Williamstown, Mass.
 Osborn, Samuel Galloway, 1897, LL. B., Columbus, attorney.
 Osborn, Raymond Carroll, 1898, B. Sc., Columbus.
 Ozias, Albert N., 1889, M. Sc., Racine, Wis., principal High School.

P

- Pabodie, Robert Jewett, 1899, M. E., Wyoming.
 Page, William Herbert, 1892, LL. B., 1894, LL. M. (B. A., Yale), Columbus, professor of Elementary Law, State University.
 Palmer, Walter K., 1893, M. E., State University, Lawrence, Kas., professor of Mechanical Engineering.
 Parker, John Bernard, 1898, B. A., Columbus, fellow in Rhetoric, State University.

- Patch, Homer Austin, 1896, C. E., Youngstown Bdg. Co.
 Patchell, Owen P., 1889, B. Ph., Ardmore, Ind., attorney-at-law.
 Patchin, Rufus Harry, 1898, LL. B., Chardon, attorney-at-law.
 Payne, Halbert Edwin, 1887, M. E., 256 Broadway, New York City, American Typewriter Co.
 Peal, Allen Saunders, 1895, B. A., Chicago, Ill.
 Pearce, George Downer, 1892, G. Ph., Goshen, Ind., pharmacist.
 Pearl, Allen Sexton, 1894, M. E. in EE., Chicago, Ill., salesman, Central Electric Company.
 Pease, Edward Livingstone, 1895, B. A., 1899, LL. B., Columbus.
 Pedlow, Edward Benjamin, 1893, C. E., New Straitsville, superintendent, Columbus and Hocking Coal and Iron Co.
 Peppel, Samuel Vernon, 1899, B. Sc. (Chem.), Leetonia.
 Pence, David Arrel, 1894, M. E., Lowellville.
 Perkins, Earl Harley, 1893, LL. B., Wellington.
 Peters, William Lincoln, 1885, M. E., Riverside, Cal., manufacturer.
 Pfarr, Philip Lewis, 1896, B. Sc. (Agr.), Dennison, Iowa.
 Phelps, Cyrus Alba, 1892, B. Sc., Sombereto, Jacataccas, Mexico, with Sombereto Mining and Milling Co.
 Pierce, John Mattison, 1895, M. E. in EE., South Charleston.
 Pilcher, Hastings Moore, 1895, M. E. in EE.
 Plantz, Wyatt Garfield, 1894, B. A., Pomeroy.
 Pleukharp, Chas. V., 1885, M. E.
 Plimmer, Gertrude Alice, 1896, B. Ph., Columbus.
 Polk, Walter C., 1895, C. E., Indianapolis, Ind., assistant general foreman, Central Union Telephone Co.
 Pomerene, Frank Etherington, 1891, B. Ph., 1895, LL. B., Coshocton, attorney-at-law.
 Pool, Harwood Redington, 1881, B. Ph., LL. B., 62 Cedar street, New York City.
 Porter, Mary Baxter, 1897, B. Ph., Columbus.
 Postle, Herman R., 1894, C. E., Columbus, teacher.
 Postle, Kenneth F., 1894, B. A., Lancaster, Ky., teacher.
 Powell, Chas. S., 1893, M. E. in EE., Cleveland, representing Westinghouse E. & M. Co.
 Powell, Edward Thompson, 1896, LL. B., Columbus, attorney.
 Powell, Norman Clemson, 1895, D. V. M., Damascus.
 Prall, Anna Dickson, 1898, B. A., Columbus.
 Price, Homer Charles, 1897, B. Sc. (Agr.), Newark, farmer.
 Priest, Frederick, 1895, D. V. M., Newark, veterinary surgeon.
 Pryor, Charles Foster, 1898, LL. B., Columbus.
 Pugh, Lawrence Randolph Whetzel, 1893, B. Ph., 1895, LL. B., Columbus, attorney-at-law.
 Pumphrey, John Homer, 1898, B. Sc., Clayton.
 Putnam, Abbey Slocum, 1897, B. Ph., Fisher, Ill.

R

- Radcliff, Charles Anson, 1895, B. Ph., attorney, Jackson.
 Randall, Emilius Oviatt, 1892, LL. M. (B. Ph., Cornell University), Columbus, attorney-at-law, professor in Law School, State University.
 Randolph, Edward S., 1897, LL. B. (A. B., Ohio Wesleyan University), Somerset.
 Rane, Frank William, 1891, B. Agr. (1892, M. Sc., Cornell), Durham, N. H., professor of Agriculture and Horticulture, New Hampshire College.

- Rarick, Murray M., 1896, B. Sc. (Agr.), Columbus, student, Starling Medical College.
- Rasor, Samuel Eugene, 1898, B. Sc.
- Rawson, Levi, 1899, C. E., Lisbon.
- Ray, Frank A., 1887, E. M., Columbus, associate professor of mine engineering, State University.
- Ray, William M., 1893, C. E., room 825, Hickox Building, Cleveland, C. L. & W. R. R.
- Raymond, Coles Abel, 1894, C. E., Youngstown, Youngstown Bdg. Co.
- Raymond, Frank M., 1888, B. A., Columbus, attorney-at-law.
- Raymond, Maud, 1899, B. Ph., Columbus.
- Redick, Mary Glisson, 1898, B. Ph., Findlay.
- Reed, Robert Browning, 1896, M. E. in EE., Zanesville, electrical contractor.
- Reed, William Allen, 1897, E. M., Central City, Colo., assaying officers, Alsdorf & Paul.
- Reese, William Daniel, 1891, B. A.
- Reese, William Henry, 1896, G. Ph., Glen Roy.
- Reeves, Archibald C., 1887, C. E., 153 Superior ave., Dayton, civil engineer.
- Resler, Edwin D. (B. A., Otterbein), 1897, M. A., Westerville.
- Rice, Herbert A., 1897, C. E., Columbus, with Yost & Packard, architect.
- Rice, Mabel Elise, 1898, B. A., Columbus, student.
- Rice, Susan Esther, 1899, B. A., Columbus.
- Richardson, Hamilton Hutchinson, 1892, B. Agr., Brooklyn, gardener.
- Richardson, William Waddle, 1899, B. Ph., Massillon.
- Richey, Luzerne A., 1897, B. Ph., Denver, Col., attorney.
- Rickey, Alla B., 1889, B. Ph. (Mrs. Geo. H. Cless), Broad street, Columbus.
- Riddle, Howard Sterling, 1897, M. E. in EE., Columbus, Jeffrey Mfg. Co.
- Riddle, Lumina C., 1897, B. Sc., 1898, M. Sc., Columbus.
- Rietz, Henry Lewis, 1899, B. Ph., Gilmore.
- Riggs, Ernest Jacob, 1895, B. Sc. (Agr.), M. Sc. (H. & F.), Angola.
- Rightmire, George Washington, 1895, B. Ph., 1898, M. A., Columbus, teacher in High School and fellow and assistant in American History, State University.
- Ritchey, Joseph C., 1890, B. Sc., Mingo Junction, with Junction Iron and Steel Co.
- Roach, Simeon Andrew, 1899, B. Ph., Chillicothe.
- Robbins, George A., 1899, B. Ph., Columbus.
- Roberts, Cyrus Swan, 1898, E. M., San Lui Potosi, Mexico, with the Cia Metalurica Mexicana.
- Robinson, Eckla Mazola, 1892, B. Sc. (Mrs. George Rowe).
- Robinson, Erdis Geroska, 1893, C. E., Mexico, D. F., Mexico, Engineering Department of Mexican Central Railway.
- Robinson, Zella Vina, 1898, B. Ph., Columbus.
- Rockwell, Mary Fannie, 1899, B. Ph., Columbus.
- Rogers, Andrews, 1896, B. Ph., New York City, student, College of Physicians and Surgeons.
- Rogers, Frank Persons, 1899, B. A., Columbus.
- Rogers, James Bertrand, 1896, E. M., Steubenville, National Steel Co., Mingo Junction.
- Root, Willis J., 1885, E. M., Columbus, chemist, King, Gilbert & Warren Steel Co.
- Rowlee, Henry A., 1897, M. E., Columbus, inspector Ordnance Department U. S. A.
- Ruhlen, Carl Marble, 1898, M. E., Honolulu, S. I., Quartermaster's Department U. S. A.
- Ruhlen, Frank, 1896, B. Sc. (Agr.), Columbus, assistant in Agriculture, State University.

- Rule, Ralph R., 1897, LL. B. (B. S., Tri-State College, Ind.), Greenspring.
 Ruppensburg, Emma Anna, 1891, B. Sc., 1896, M. Sc., Columbus, teacher in High School.
 Russell, Ralston, 1896, B. Ph., Pomeroy.

S

- Sabine, Annie Ware, 1884, B. A., A. M. (Mrs. W. H. Seibert), Columbus.
 Sabine, Wallace Clement, 1886, B. A. (M. A., Harvard), 53 Trowbridge street, Cambridge, Mass., assistant professor in Physics, Harvard University.
 Safford, Robert Edwin, 1894, B. Sc., Columbus, with Columbus Savings Association.
 Sandoe, Lydora Olivia, 1893, LL. B., Mrs. Bachman, 1425 Bryden Road, Columbus.
 Sater, Lowry Francis, 1895, B. Ph., 1897, LL. B., Columbus, attorney.
 Schaub, Edward Louis Tascher, 1885, M. E., Dennison, Box 625, with P., C. & St. L. R. R.
 Schaup, Charles E., 1897, E. M., Syracuse, N. Y., assistant engineer, maintenance of way, West Shore R. R.
 Scheibell, William O., 1888, E. M., Upper Sandusky, manufacturer artificial stone.
 Schlesinger, Hugo Nathan, 1899, LL. B., Xenia.
 Schreiber, John Martin, 1899, M. E. in EE., Ironton.
 Schroll, Otto, 1886, C. E., Wheeling, W. Va., civil engineer.
 Schueller, Erwin Waldemar, 1892, B. A., M. D., 1894, Columbus, physician.
 Schwier, Minona, 1897, B. A., Columbus.
 Scott, Anna Neill, 1886, B. A., 1274 Summit street, Columbus.
 Scott, Bertha, 1890, B. Ph., Indianola Place, Columbus.
 Scott, Herbert, 1893, B. Sc., Columbus, pastor North M. E. Church.
 Scott, Charles Felton, 1885, B. A., Pittsburg, Pa., chief electrician Westinghouse E. & M. Co.
 Scott, Daisy Medill, 1887, B. A., Columbus, teacher in High School.
 Scott, Emma, 1888, B. Sc., Brindaban, India Missionary.
 Scott, Ernest, 1897, B. Sc. (Agr.), Columbus, student, Ohio Medical University.
 Scott, Mary Odella, 1885, B. A., Columbus, teacher in High School.
 Scott, May Mermon, 1887, B. A., 1274 Summit street, Columbus.
 Scott, Mary Bole, 1896, B. A., Columbus, teacher.
 Sears, Walter James, 1894, B. Ph., Chillicothe, with Sears and Nichols Co.
 Sedgwick, Edward Crayton, 1895, M. E. in EE., Zanesville.
 Selby, Augustine D., 1893, B. Sc., Wooster, botanist and chemist, Ohio Experiment Station.
 Sellenings, Albert Eugene, 1896, B. Ph., student, Bellevue Medical College, New York.
 Serva, Adam A., 1893, M. E. in EE., New York City, with General Electric Co.
 Shark, Robert J., 1897, LL. B., Hamilton.
 Sharp, Charles C., 1888, C. E., Corning, superintendent Mining Department Sunday Creek Coal Co.
 Sharp, David Barton, 1893, LL. B., Columbus.
 Shellabarger, Marley Rolin, 1897, B. Sc. (Agr.), Garland.
 *Shepard, Frank Reed, 1893, B. A., died August, 1893.
 Sherman, Christopher Elias, 1894, C. E., Columbus, assistant professor in Civil Engineering, State University.
 Shield, Wallace B., 1898, B. A., Kansas City, Mo.
 Short, Sidney H., 1880, B. Sc., East Ninth avenue, Cleveland.
 Shuck, Carey Lucas, 1898, B. Ph., Columbus, "Columbus Evening Dispatch."

- Shurtz, Olive L., 1898, B. Ph., Columbus.
- Siebert, Wilbur H., 1888, B. A. (M. A., Harvard), Columbus, associate professor History, State University.
- Sigerfoos, Charles Peter, 1889, B. Sc., 1897, Ph. D. (Johns Hopkins University), Minneapolis, Minn., assistant professor of Animal Biology, University of Minnesota.
- Sigerfoos, Edward, 1891, B. Ph., Fort McPherson, Georgia, 1st Lieut. Fifth Infantry, U. S. Army.
- Simonton, Mark, 1895, M. E. in EE., Columbus.
- Simpson, Abigail Ellen, 1895, B. A., London, teacher in High School.
- Sinks, Frederick Nicholas, Ph. L. (Yale University), 1898, LL. B., Columbus.
- Skinner, Chas. E., 1890, M. E., box 435, Wilkinsburg, Pa., Westinghouse E. & M. Co.
- Slater, Burr Homer, 1895, G. Ph., Chesterville, pharmacist.
- Slyh, Emma Almeida, 1892, B. Sc., Marble Cliff.
- Smith, Alice May, 1897, B. Ph., Sidney, teacher.
- Smith, Burton Griffin, 1895, G. Ph., Detroit, Mich., chemist for the Ray Chemical Co.
- Smith, Carl Clyde, 1890, B. Ph., Marietta.
- Smith, Clarence Elmer, 1898, G. Ph., Massillon.
- Smith, David William, 1899, C. E., Ashland.
- Smith, Edward E., 1897, G. Ph., Wooster.
- Smith, Edward Trevett, 1898, LL. B., Holden, Mo.
- Smith, Florizel, 1880, B. A., Spahr Building, Columbus, attorney-at-law.
- Smith, Horace Prescott, 1886, B. Sc.
- Smith, Maud Virginia, 1894, B. A. (Mrs. Thomas Chalmers), Port Huron, Mich.
- Smith, Myron Alphonso, 1892, B. Ph., Columbus, with Keyes & Thomas, real estate agents.
- Smith, Nathaniel B., 1893, D. V. M.
- Smith, Philo Christopher, 1885, B. Sc., Middlebranch, farmer.
- Smith, Warren Lee, 1899, LL. B., Columbus.
- Snider, Charles M., 1897, B. Sc. (Ind. Arts), Columbus.
- Snider, Jesse Worthington, 1893, LL. B., LL. M., Columbus.
- Snively, Harry H., 1895, B. A., Columbus, teacher in High School.
- Snow, Walter A., 1897, B. Ph., Chicago, Ill., student, Chicago Theological Seminary.
- *Snyder, Henry, 1879, B. Sc., 1892, M. Sc.
- Snyder, James Edward, 1892, LL. B. (B. A., Wooster University).
- Snyder, Walter S., 1897, LL. B., Columbus, attorney.
- Somermeir, Edward Everett, 1898, G. Ph., Columbus, assistant in Metallurgy, State University.
- Southard, Eustace Elden, 1895, G. Ph., Columbus, Pharmacist.
- Southard, Thomas Campbell, 1896, B. A., Columbus.
- Sparks, Edwin Earle, 1884, B. A., 1892, M. A., Chicago University, assistant professor.
- Spencer, William Henry, 1891, G. Ph., Oberlin, druggist.
- Spencer, Ralph Oliver, 1899, B. A., Columbus.
- Sperr, Frederick W., 1883, E. M., Houghton, Mich., professor of Civil and Mining Engineering, Michigan School of Mines.
- Sprague, Charles Franklin, 1896, B. A., 1899, LL. B., Wapakoneta.
- Sprague, Clarence Milton, 1899, C. E., Summerford.
- Sprague, William Ralph, 1899, B. Ph., Columbus.
- Spurrier, John Randolph, 1896, M. E. in EE., Pittsburg, Westinghouse E. & M. Co.

- Staley, Marcellus, 1899, M. E. in EE., Dayton.
- Stanberry, Charles L., 1892, G. Ph., Columbus, pharmacist, Columbus Hospital for the Insane.
- Starbuck, Daniel Carl, 1899, M. E. in EE., Barnesville.
- Steeb, Carl Eckert, 1899, B. Ph., Washington, D. C., Census Department.
- Stephenson, Henry Thew, 1894, B. Sc., Bloomington, Ind, instructor in English, University of Indiana.
- Stevens, Frank M., 1897, LL. B., Elyria.
- Stewart, Edwin Earle, 1895, LL. B. (M. A., Antioch College), attorney, Springfield.
- Stewart, Lee Raymond, 1896, C. E., Youngstown Bridge Works.
- Stewart, Harford Toland, 1896, M. E. in EE., Schenectady, N. Y., with General Electric Co.
- Stiger, Thomas A., 1899, LL. B., Bucyrus.
- Stimson, Charles Leslie, 1899, B. A., Columbus.
- Stinebaugh, Isaac Long, 1892, C. E., teacher.
- Stone, Carlton Elijah, 1899, C. E., Gallipolis.
- Storer, Norman Wilson, 1891, M. E. in EE., Pittsburg, Pa., Westinghouse E. & M. Co.
- Storer, Simon B., 1893, M. E. in EE., Syracuse, N. Y., engineering and salesman, Westinghouse E. & M. Co.
- Stouffer, Charles Irwin, 1893, LL. B., Columbus.
- Stoughton, Geo. L., 1895, LL. B. (B. A., Otterbein University).
- Stull, Emmett Willet, 1894, M. E. in EE., Johnstown, Pa., draughtsman Motor Department The Lorain Steel Co.
- Stump, Franklin Pierce, 1892, B. Agr., Convoy, farmer.
- Stump, John William, 1895, C. E., County Engineer, Fairfield Co., Ohio.
- Stump, William Lisle, 1897, G. Ph., 1898, M. Ph., Nashport.
- Surface, Harvey Adam, 1891, B. Sc., 1892, M. Sc.
- Sutherland, Margaret, 1898, B. Ph., Columbus.
- Sutphen, James Leonard, 1897, G. Ph., Columbus.
- *Swartzel, Earl Glen, 1895, B. Sc., died March, 1899.
- Swartzel, Karl Dale, 1893, B. Sc., 1894, M. Sc., Columbus, assistant professor of Mathematics, State University.
- Swisher, William Henry, 1896, G. Ph., Campbellstown.
- Sykes, William Edgar, 1898, LL. B., Marietta.
- Sylvester, John E., Jr., 1898, B. Ph., Wellston.

T

- Talbot, Ellen B., 1890, B. A.
- Talbot, Herbert Swan, 1898, B. Ph., Columbus.
- Talbot, Mignon, 1892, B. A., 640 Franklin ave., Columbus, teacher in High School.
- Taylor, Arthur W., 1894, E. M., Cleveland, chemist for Cleveland Furnace Co.
- *Taylor, Francis Asbury, 1885, B. A., died July 25, 1891.
- Taylor, Alexander R., 1895, B. Sc.
- Taylor, Ralph Buren, 1895, B. A.
- Taylor, Joseph Russell, 1887, B. A., M. A. (Columbia University), Columbus, assistant professor English Literature, State University.
- Taylor, Pearl V., 1897, B. A., Columbus.
- Teter, Anstie Welsh, 1896, G. Ph., Springfield.
- Thomas, James O., 1897, C. E., Columbus.
- Thompson, Carmi A., 1892, B. Ph., 1895, LL. B., Ironton, city solicitor.

- Thompson, Howard N., 1888, B. Ph., Washington, D. C., correspondent Associated Press.
- Tomlinson, James Rowe, 1892, C. E., Youngstown Bridge Co.
- Towne, Robert S., 1879, B. Sc., E. M., 20 Nassau street, New York, N. Y., president Mexican Northern Railway.
- Townshend, Alice Margaret, 1880, B. A. (Mrs. Charles Wing), Newark.
- Townshend, Arthur Bailey, 1878, B. Sc., M. D., 22 West 32nd street, New York, N. Y., physician.
- Tufts, Charles Hill, 1899, E. M.
- Tupper, Eugene L., 1893, G. Ph., Minneapolis, Minn., medical student.
- Turner, Arthur M., 1893, M. E. in EE.
- Turner, Frederick Lewis, 1897, B. A., 1898, M. A., Columbus.
- Twiss, George R., 1885, B. Sc., Cleveland, teacher of Physics in High School.
- Twiss, Edith Minot, 1895, B. A., Mt. Vernon, teacher in High School.
- Twiss, Marion Evans, 1897, B. A., Columbus, State Library.

U

- Uncles, Margaret Anna, 1897, B. A., Columbus.
- Underwood, Ella, 1898, B. A., Columbus.
- Urban, Harry Marshall, 1898, C. E., Pittsburg, Pa., "Pan Handle" R. R.

V

- Vance, Mary Grace, 1898, B. A., Columbus.
- Vandervoort, William P., 1886, E. M., Morrow, superintendent of schools.
- Van Harlingen, Edward M., B. Sc., 1883, M. Sc., 1897, Columbus.
- Viets, Willis B., 1886, E. M., Parryville, Pa., chemist, Carbon Coal and Iron Co.
- Voke, Lewis F., 1893, G. Ph., Columbus, M. D., Starling Medical College, physician, France Medical Institute.
- Voorhees, Burt Fisk, 1894, LL. B., Coshocton.
- *Voorhees, Charles W., 1892, LL. M. (B. Sc., Scio College), died 1898.
- Voorhees, Isaac M., 1894, B. Ph., Cadiz, journalist, editor of "Harrison News."
- Vornholt, Julius Franklin, 1898, B. A., New Bremen.

W

- Wadsworth, F. L. Olcutt, 1888, B. Sc., E. M., M. E., Williams Bay, Wis., Yerkes Observatory.
- Wagstaff, Edward A., 1893, G. Ph., Niles, pharmacist.
- Waid, Clarence William, 1898, B. Sc. (H. & F.), Emery.
- Walker, Frederick William, 1896, B. A., Columbus.
- Walker, James Madison, 1896, C. E., Zanesville, B. & O. R. R.
- Walsh, Annetta Curtis, 1897, B. A., Columbus.
- Walsh, Mary Helen, 1896, B. Ph., Columbus.
- Ward, J. C., 1880, B. A., Painesville, engineer and surveyor.
- Ward, Philip Emerson, 1899, B. Ph., Willoughby.
- Warden, Leonard C., 1899, B. Sc. (H. & F.), Avon.
- Warner, Cora, 1882, B. Ph., corner Hubbard and Dennison aves., Columbus.
- Warren, Arthur Robert, 1893, LL. B., Columbus.
- Warren, Grant Alexander, 1894, LL. B.
- Watson, Bensen Gruber, 1896, B. Ph., Columbus, attorney.

- Watson, Edward T., 1897, B. Sc., Chillicothe, teacher in High School.
- Watt, Sern P., 1886, M. E., Columbus, Rarig Manufacturing Co.
- Weaver, Mary Luretta, 1891, B. Ph., 231 Church street, Urbana.
- Weaver, Harry Bright, 1894, LL. B. (B. A., Ohio Wesleyan University), Circleville, attorney.
- Webb, Scott Anderson, 1888, B. Ph., Columbus, attorney-at-law.
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